

INTHEFIELD

January
February
2001

The Field Museum's Member Publication



Three Lemur Species
Discovered in Madagascar

“Kremlin Gold”
From One Continent to Another

From the President

Willard L. Boyd, former Field Museum president, was elected as a fellow last fall to the American Academy of Arts & Sciences, a 220-year-old organization founded by John Adams that brings scholars and policy-makers together to study complex, long-range issues and recommend actions. A former lawyer and now a professor of law at the University of Iowa, Mr. Boyd has served with distinction in two major posts in educational and scientific administration: president of the University of Iowa (1969-1981) and president of The Field Museum (1981-1996). He is also a valued member of numerous advisory bodies of national scope in public policy and cultural affairs. On behalf of The Field Museum, we congratulate Mr. Boyd for this prestigious honor.

A SUCCESSFUL STRING OF SPECIAL EXHIBITIONS

Over the past five years, it has been our privilege to present to our visitors a wonderful array of temporary exhibitions "exploring the world and its people."



JOHN W. MCCARTER JR.

2000

Africa: From Eritrea with Love
Masks: Faces of Culture
The Dead Sea Scrolls
Picturing *T. rex*: Selections from the Lenzendorf Collection
Kachinas: Gifts from the Spirit Messengers
Star Wars: The Magic of Myth
Americanos: Latino Life in the United States
The *Endurance*: Shackleton's Legendary Antarctic Expedition
Kremlin Gold: 1000 Years of Russian Gems and Jewels

1999

Origins
Women in Science: Conversations in Conservation
Margaret Mee: Return to the Amazon
With Patience and Good Will: The Art of the Arapaho

The Tibetan Art of Healing
The Art of Being Kuna: Layers of Meaning Among the Kuna of Panama
Sue: The Inside Story
Insects: 105 Years of Collecting
Summer Festivals of Guerrero and Oaxaca: The Cycle of Propitiation and Sacrifice
Sounds from the Vaults
The Chicago Bears: 80 Years of Gridiron Legends
Cartier 1900-1939

1998

Soul of the Game: Images and Voices of Street Basketball
Viewing Olmsted: Photographs by Robert Burley, Lee Friedlander and Geoffrey James
Assignment Rescue: The Story of Varian Fry and the Emergency Rescue Committee
Living Colors: A Butterfly Garden
Voyage of a Nation: The Philippines
Charles Carpenter: Native American Portraits
Poster Art from the Golden Age of Mexican Cinema 1936-1957
China's Feathered Dinosaurs
Swedish Folk Art: All Tradition is Change
The Art of the Motorcycle
La Guadalupeana: Images of Faith and Devotion

1997

Sacred Arts of Haitian Vodou
The Illegal Camera 1940-1945: Photography in the Netherlands during

the German Occupation
Kayapo Imaging
Dinosaur Families: The Story of Egg Mountain
Archaeopteryx: The Bird that Rocked the World
A Basketmaker in Rural Japan
Sisters of the Great Lakes: Art of American Indian Women

1996

Modern Japanese Ceramics
Travelers in an Antique Land: Early Travel Photography in Egypt
In Their Own Voices
Feeling the Spirit: Searching the World for the People of Africa
Planet Peru
Spiders!
From the Good Earth
Visual Fusion: Work by Chicago Latino Artists
Cajun Music and Zydeco
Portraits of Clay: Potters of Mata Ortiz
Heaven on Earth: Orthodox Treasures from Siberia and North America
Red White Blue and God Bless You: A Portrait of Northern New Mexico

And 2001 will continue this tradition.

A handwritten signature in dark ink, reading "John W. McCarter Jr." in a cursive script.

John W. McCarter Jr.
President & CEO

What do you think about *In the Field*?

In the Field tries, whenever possible, to implement your feedback in making this a better magazine. Beginning with this issue, we moved the mailing label to the back since many readers wish to frame the stunning covers. It is now slightly smaller so it can fit into your file drawers, and the cover is heavier so it will last longer. Your Guide to the Field, the calendar section in the middle, is now a pullout so that you can keep it in an easily seen, quickly accessible place. And the entire magazine is now printed on recycled paper in soy-based inks—carrying the Museum's conservation ethic to a practical, meaningful level.

We will slowly be trying new things throughout 2001. Please send comments or questions to Amy Cranch, publications manager, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496, or via e-mail at acranch@fmnh.org.

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Get a glimpse of the ambitious visionaries who helped build the Department of Anthropology over the past century.

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A Field Museum scientist is part of an international team that discovered new species of endangered lemurs.

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Your Guide to the Field, which highlights exhibitions, classes, lectures and more, is now a pullout section for quick, easy reference in planning your visits or continued learning opportunities.

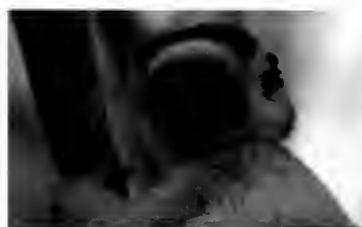
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A 26-year volunteer wins a lifetime achievement award from the Illinois Association of Museums.



*John Moyer and Paul Martin
filming a 1950 excavation.*

COURTESY OF JIM AND ELOISE BARTER



*Propithecus verreauxi verreauxi,
Beza-Mahafaly Special Reserve,
southwestern Madagascar.*

COURTESY OF LINK OLSON/N 5 30



*Peter Gayford, volunteer, and
Chapurukha Kusimba, associate
curator of African anthropology.*

JOHN WEINSTEIN/GN89966 60C

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This issue's cover image, "Icon Wall, Paint Elevation: Kremlin Gold," is a watercolor and ink on illustration board designed and painted by David Layman of the exhibits department. Scenes like this can be viewed as backdrops in "Kremlin Gold: 1000 Years of Russian Gems and Jewels" through March 30, 2001.

The **Field**
Museum

The Field Museum salutes the people of Chicago for their long-standing, generous support of the Museum through the Chicago Park District.

The Field Museum
1400 South Lake Shore Drive
Chicago, IL 60605-2496

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www.fieldmuseum.org

Museum Campus Neighbors

Shedd Aquarium

Shedd Aquarium kicks off its "Oceanarium Turns 10" celebration with "Totally Training" from January through March. Learn about the importance of training programs for marine mammals and for cats and dogs as well. Watch the dolphins and belugas learn an entirely new behavioral program during regularly scheduled marine mammal presentations. These are techniques you can try on your pet at home, with help from Ken Ramirez, Shedd's director of training and husbandry, during "Pet Training—The Shedd Way," on Feb. 10, from 10 a.m. to 3 p.m. For details and to register, call 312.692.3333. For general information, check out www.sheddaquarium.org.

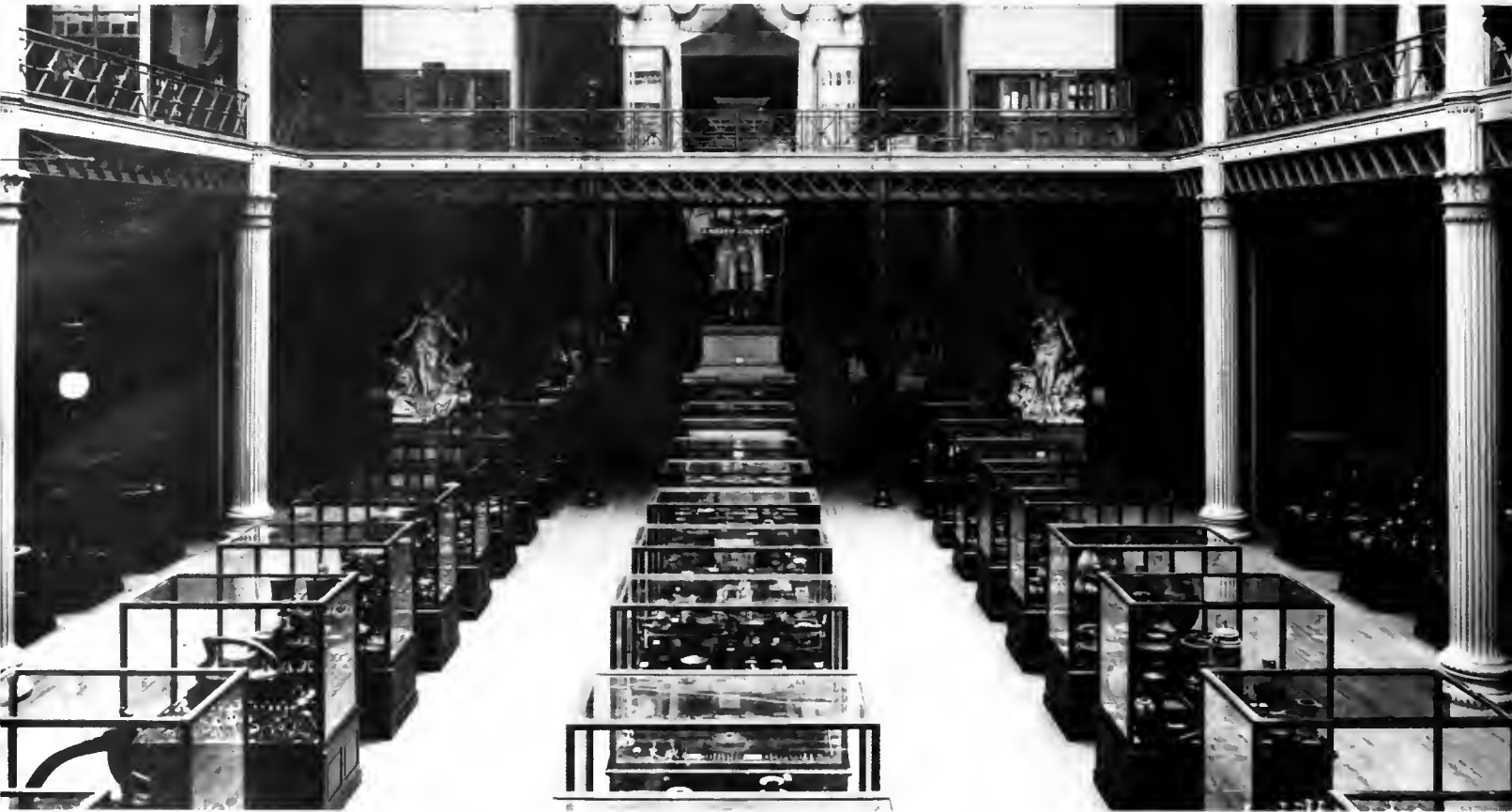
Adler Planetarium

The first Saturday of every month, explore the skies from 11 a.m. to 3 p.m. during Sears Family Days at the Adler Planetarium & Astronomy Museum. Family activities cover a wide variety of topics, including the stars and constellations. Admission is free.

Or, journey to the edge of the universe as you take a voyage in the world's first StarRider™ Theater to *Black Holes: Into the Dark Abyss*. This ongoing sky show explores a force of gravity so powerful that it captures everything that comes too close. For more information, call 312.322.0304 or visit www.adlerplanetarium.org.

107 YEARS OF ANTHROPOLOGICAL LEADERSHIP AT THE FIELD MUSEUM

By Warren Haskin, Volunteer, and Stephen E. Nash, Head of Collections, Department of Anthropology



European Archaeology Hall, North Court, Field Museum of Natural History, Jackson Park, about 1907.

When The Field Museum was founded in 1893, its Department of Anthropology became the principal beneficiary of some 50,000 objects acquired for display during the World's Columbian Exposition of that year. These objects represented prehistoric and existing cultures from around the world, including spectacular archaeological specimens from the Ohio Hopewell (ITF Nov./Dec. 2000), ethnographic objects from numerous cultures of Central and South America (ITF May/June 2000) and musical instruments and pottery from places as varied as India, Japan and Palestine (ITF Nov./Dec. 1999). These priceless collections, as well as those built later in the 20th century, tell only part of the Field's illustrious history. Here we introduce you to some colorful personalities that have led the Department of Anthropology and helped the

Museum attain a prominent place in the worldwide social science community.

A Young and Aspiring Institution: 1890–1920

Prior to the Exposition, Harvard University's Frederick Ward Putnam, who was heading the Exposition's Department of Ethnology, supervised dozens of anthropologists in a whirlwind of collecting activity between 1890 and 1893. Archaeological and ethnological collections arrived from all over the world, ranging from Egypt to Ecuador, from northern Canada to Chile.

The Field Museum was incorporated by 64 civic and business leaders who, at Putnam's prompting, wanted to retain the Exposition's collections in Chicago to help build a world-class natural history museum. They persuaded Marshall Field I to donate

\$1 million for its endowment and recognized this gift by naming the Museum after him. The first formally named curator was William Henry Holmes, who was hired away from the Smithsonian Institution for \$4,000 a year. During his brief tenure, Holmes engaged in only one major collecting expedition. In 1895, he co-lead the four-month long A.V. Armour Expedition to Mexico to collect Maya, Aztec and Zapotec objects from important archaeological sites, including Chichen Itza, Uxmal, Palenque, Mitla, Monte Alban and Teotihuacan.

Holmes was a visionary who felt a great urgency for his fledgling Museum to engage in additional collecting activity. In an 1897 letter to F.J.V. Skiff, the Museum's director, Holmes proposed an "extended exploration of certain little-known portions of South America. . . [for] the acquirement of Museum materials and the prosecution of the research work that properly accompanies the collection and use of such materials." He feared that other "museums of the world" were "sending expeditions to the most remote corners of every country" with the likely result that "the vast body of the materials and data now available for the study of Anthropology are doomed to disappear before proper representations can be secured." The Museum, he asserted, "as a young and aspiring institution, . . . can not afford to take a subordinate place in this field." To avoid this fate, Holmes hired collector extraordinaire George Amos Dorsey in 1896. Holmes resigned in 1897 to return to the Smithsonian, and Dorsey, then 29, became curator.

George Amos Dorsey: 1896–1915

While Putnam's student at Harvard, Dorsey was the World Columbian Exposition's superintendent of archaeology and supervised collecting its objects from South America. After the Museum hired him, Dorsey was immediately dispatched to the western United States to amass archeological and ethnological material. He was sensitive to Holmes's concerns and determined to collect as much as he could during several forays into the field. He was a relentless collector and a formidable, aggressive motivator of his assistants. Under his leadership the Museum acquired nearly 20,000 objects, particularly from North and South America, the Philippines and Malaysia. In a 1931 obituary, Fay-Cooper Cole of the University of Chicago described him as "the greatest museum-builder of the period." In 1998,



THE FIELD MUSEUM/CSA 13257

*Dr. George Dorsey
with Tehuillche man,
Patagonia, Argentina.*

Adjunct Curator of Anthropology Robert Welsh described Dorsey as "the principal architect of Field Museum anthropology collections." Dorsey remained curator until 1915. After that he campaigned for Woodrow Wilson's reelection, served in the U.S. Navy during World War I, was a professor of comparative anatomy at Northwestern University and worked as a correspondent for the *London News*.

One of Dorsey's acquisitions, almost unnoticed at the time but which has had a permanent impact as an exhibit and tool for building international relations, has a fascinating history. In the 1890s elements of a large, engraved wood Maori meetinghouse named Ruatēpupuke were sold to a German dealer of Maori artifacts. In 1905, Dorsey purchased the house elements for \$5,000, but the Museum's building—the Exposition's Fine Arts Palace, currently the site of the Museum of Science and Industry—had no exhibit space available for the house, and it was relegated to storage. After the Museum moved to its current Grant Park site, the house was reassembled as an exhibit on the ground floor in 1925. During renovations in the 1980s Ruatēpupuke was again disassembled and its status became unclear. Following detailed consultations between the Museum, led by Curator John Terrell, and Maori leadership, the Maori generously suggested that it should stay in Chicago as an authentic Maori outpost and meeting place. Today Ruatēpupuke stands behind the "Traveling the Pacific" exhibition at the west end of the Museum's upper level and is used for lectures, receptions and festive gatherings.

By the end of 1908, 14 years after the Museum opened, the Department of Anthropology was no

longer a one- or two-person show, for Dorsey had hired curators who specialized in the anthropology of particular culture areas. Notable among the eight curators then on staff was Berthold Laufer, assistant curator of Asiatic ethnology.

Berthold Laufer: 1907–1934

Dorsey hired Laufer in 1907, but before he ever visited the Museum, he led a benefactor-funded, three-year collecting expedition to China and Tibet. By the time he returned to Chicago in 1910, he had acquired more than 10,000 objects for the Museum's collections. When Dorsey resigned in 1915, Laufer became curator, a post that he held for the next two decades.

Laufer is remembered today for his critically acclaimed scholarship in Asian archaeology and ethnology, as well as his extensive object acquisitions for the Museum. He read and spoke several languages, including Chinese, and was a prolific writer. At the time of his death, he was considered the leading Sinologist of his day. Just as curators and collections managers do today, he answered inquiries from experts and amateurs on the ethnology, archaeology, history and art of China and Tibet. As virtually the only Western anthropologist who could read and speak Chinese, Laufer became the recognized authority whom other anthropologists consulted concerning artifacts from China.



Dr. Berthold Laufer holding a rhinoceros horn cup.

From 1919 to 1921, all personnel were occupied with moving the Museum from its original Hyde Park site to its present home at Roosevelt Road and Lake Shore Drive. The new building opened on May 21, 1921, the first of three cultural institutions to be erected on what is now the Museum Campus (ITF May/June 1998). (Shedd Aquarium and the Adler Planetarium were added in 1929 and 1930, respectively. The Museum of Science and Industry opened at The Field Museum's former site in 1933.)

After a hiatus during World War I, fieldwork resumed in 1922 when Museum scientists went on a joint expedition with colleagues from Oxford University to excavate the 5,000-year-old city of Kish, near Babylon in present-day Iraq. The 10-year project yielded more than 30,000 objects, ranging from bronze vessels to cuneiform-inscribed clay tablets, stone tools and jewelry. Half of the collection remains at Oxford University; the other half still forms an important and heavily researched component of the Museum's collections.

Laufer died in 1934. His tenure here is marked by a philosophical shift in the Museum's mission. Whereas Dorsey sought to collect as much as possible and have the Museum serve largely as an object repository, Laufer was more interested in the research potential and analytical significance of the Museum's collections.

Paul Sidney Martin: 1929–1972

In August 1929, just before the stock market crash, Laufer hired a recently minted University of Chicago Ph.D. named Paul Sidney Martin. During his 43-year tenure as curator, Martin became a giant in the development of North American anthropology and archaeology. He conducted fieldwork during 37 summers, excavating more than 70 archaeological sites in Colorado, New Mexico and Arizona. No archaeologist before or since has been able to match Martin's impressive research and



Dr. Paul Martin surveying Higgins Flat Pueblo, New Mexico.

publication record. In the process, Martin and his senior colleagues at the Museum trained an entire generation of archaeologists, thereby setting the agenda and charting the future of North American archaeological method and theory for decades to come.

Martin's 600,000-piece artifact collection includes more than 300 whole or reconstructed ceramic vessels, 40,000 corn cobs, 265,000 potsherds, 7,000 chipped stone tools, 170,000 pieces of chipped stone detritus, 1,500 projectile points, 1,000 bone awls, 400 grinding stones or manos, 57,000 animal bones, 16,000 botanical remains and 600 pieces of groundstone. Yet the vast majority of these objects has never been systematically analyzed in any meaningful way. Martin tended to catalog only those artifacts that he published; collections from 37 of the 70 sites he did not publish reports on were never processed. In 1997, Curator Jonathan Haas received a National Science Foundation grant and hired Stephen Nash to catalog and computerize the 600,000-object Martin Collection (ITF Jan./Feb. 1999). The results, complete with site reports and an artifact image gallery, are now available on the Museum's website at www.field-museum.org, making the Martin Collection one of the most accessible archaeological collections of North American objects.

Donald Collier: 1941–1970

Donald Collier, a specialist in South American ethnology and archaeology whom Martin hired in 1941, succeeded Martin as chief curator after he stepped down in 1964. Collier is remembered for developing ethical standards that many museums now apply to sensitive issues such as the acquisition of illegally or illicitly acquired antiquities and representing ethnic minorities in museums. In the early 1950s, Collier became one of the first museum curators to make materials available for radiocarbon dating analysis, a significant step in the evolution of museum philosophy. At that time, radiocarbon dating required destroying extremely large amounts—sometimes pounds—of material in the form of wood, bone or charcoal to obtain a date. Today, radiocarbon dating is much less destructive, using particle accelerators from which dates can be obtained on milligram-sized samples.

Collier served as chief curator until 1970. His resignation marked the end of a remarkable 76-year period in which only five people had held this position—Holmes, Dorsey, Laufer, Martin and Collier. Each man greatly influenced—or, one could say, determined—the allocation of the department's resources and its research agenda. For the past three decades departmental operations have proceeded more democratically as leadership rotated between



Donald Collier.

curators on a regular basis. And in 1999, the department took a significant step when it hired Gary Feinman from the University of Wisconsin as its new chairman.

The Future

The Department of Anthropology is entering the new millennium with a renewed sense of vigor and purpose, though in many ways the magnitude of its chosen task might seem unfathomable to the likes of Holmes, Dorsey or Laufer. The department's roster now lists nine curators, two curators emeriti, 34 professional staff, 15 adjunct curators, 45 Ph.D. research associates, nine associates and more than 50 volunteers. Curators are conducting cutting-edge anthropological field research in China, Peru, Brazil, Puerto Rico, New Guinea, Africa, Mexico and North America, much of it focused on the development of politically and economically complex societies around the world.

Anthropology staff are also deeply involved in developing exciting new exhibits, including the recent "Sounds from the Vaults" exhibition (ITF May/June 1999), the upcoming "Pearls" and "Chocolate" traveling exhibitions, and the new, permanent Halls of the Americas. The collections management, conservation and registration staffs are processing collections that have been backlogged for years, and in some cases, decades. They are busy administering and developing collections-processing grants so that the Museum's stunning anthropological collection of 1.5 million objects is preserved in perpetuity. As the department continues to promote the understanding of cultural variations and change through time and across space, it will build upon the accomplishments of its founders to reaffirm its leadership in museum anthropology in North America and, indeed, the world. **ITF**

THE FIELD MUSEUM/A103009

FIELD MUSEUM SCIENTIST HELPS DISCOVER THREE UNKNOWN LEMUR SPECIES IN MADAGASCAR

Carolyn Malkin, Freelance Writer

Lemurs are primitive primates that live in trees and are found only on the island of Madagascar and the nearby Comoro Islands off the east coast of Africa. They have long noses, agile limbs and piercing round eyes and can be as big as a medium-sized dog or as small as a chipmunk. There are about 40 species of living lemurs, and more than half of them are endangered since Madagascar's poor, rapidly growing population is destroying their forest habitats.

Until a few years ago, scientists believed that only two species of mouse lemurs (the smallest of their kind) lived on the entire island: *Microcebus murinus*, found in the dry forests along the western coast, and *Microcebus rufus*, seen in the more humid eastern forests. But a group of researchers, including Steven Goodman of The Field Museum, Jörg Ganzhorn of the University of Hamburg and Rodin Rasoloarison of the University of Antananarivo in Madagascar and the Deutsches Primatenzentrum in Germany, recently completed the most detailed survey ever, reported in the December 2000 *International Journal of Primatology*, of mouse lemur populations in Madagascar's western forests. Comparing the physical characteristics of mouse lemurs from 12 geographic locations, the scientists found that seven different species—including three new to science—are living where only a few were thought to exist.

"It's incredibly rare to describe a new species



Lemur catta, ring-tailed lemur, Beza-Mahafaly Special Reserve, southwestern Madagascar.

of primate, let alone three," says Goodman, who has documented Madagascar's amazing biodiversity for more than 10 years and helps Malagasy students do field research as part of the World Wide Fund for Nature's Ecology Training Program, based in the island's capital city of Antananarivo.

Mouse lemurs are the most common primates on Madagascar, with as many as 400 individuals living in one square kilometer. But their nocturnal lifestyle makes them hard to observe. "At many sites when you walk through the forest with a headlamp on, you see their eyes bouncing all around you," says Goodman.

Rasoloarison did much of the fieldwork that led to the recent discoveries, surveying mouse lemurs at a dozen sites—from thick dry forests to thorny scrubland. Ganzhorn, the third co-author, has been studying lemurs for many years and coordinated field research at the Deutsches Primatenzentrum's field station in the Kirindy Forest, one of Rasoloarison's study sites.

After analyzing physical characteristics of the mouse lemurs such as their teeth, skulls, length and body size, the researchers found clear-cut differences between the seven different species. "It was already clear from museum specimens that there was a tremendous amount of variation among mouse lemurs," says Goodman. "But previous assessments were based on too few specimens from widely scattered localities, many very discolored and as much as 150 years old. The data were not adequate to assess variation within a population."

The three new species are *Microcebus berthae*, *Microcebus sambiranensis* and *Microcebus tavaratra*. The names of two other species, *Microcebus myoxinus* and



Microcebus rufus, brown mouse lemur, Andranomay, Madagascar.

COURTESY OF LINK OLSON/N 8 31

COURTESY OF LINK OLSON/N 4 24

YOURGUIDETOTHEFIELD

A Calendar of Events for January and February

Inside

Exhibits

Festivals

Family Programs

Adult Programs

Free Programs

Don't let the cold winds of winter keep you at home. At The Field Museum, you'll find a variety of enjoyable and intellectually stimulating programs for all ages. Unless otherwise specified, **call 312.665.7400 for information, tickets or to register for programs.** Information is also posted on our website at www.fieldmuseum.org.

From One Continent to Another

Using objects of material culture to explore the peoples who made them is central to many Field Museum special exhibitions. Adding interpretive context can reveal complementary—or competing—priorities among both the Field's internal team members and the outside lenders to an exhibition. New context also challenges the design itself to reinforce the themes that unfold.

Curators from the Kremlin museums first conceived "Kremlin Gold: 1000 Years of Russian Gems and Jewels" as a lavish testament to the skill of Russia's decorative artists over time. To them, an object's technical, geographic or chronological details—such as what raw materials were used, where it was made or how styles evolved—were of primary importance. Less significant were the tales of the tsars and tsarinas or bishops and patriarchs who used these breathtaking wares to glorify faith and power. This may partly reflect an unconscious assumption that Europeans are familiar with their own history and do not necessarily need background information to illuminate the objects housed within their palaces and museums. It may also be a holdover from earlier, more conservative centuries, when many museums grew from state collections that were simply opened up to public view.

American museum-goers, however, often expect interpretation that adds greater meaning beyond an object's design or style. This challenges exhibit developers to tell the story behind the objects and, as a result, build a deeper connection to the people and times from which they came.

"When we reviewed the list of objects included in 'Kremlin Gold,'" says Project Administrator David Foster, "we realized that many are linked with famous people or events from Russian history and that fleshing out their meaning would resonate with many visitors."

In one grouping, for example, visitors see a bishop's stole, miter, pendant and cross, each embellished with rare jewels and intricate engravings. It's easy to imagine a Russian Orthodox bishop bearing this entire ensemble and passing through the faithful in an ancient Moscow cathedral.



COURTESY OF STATE MUSEUM, MOSCOW KREMLIN. ©2000

Gold bratina with lid, Moscow Kremlin Workshops, 1694.

Ultimately our Kremlin colleagues came to understand our goal of enlightening visitors to Russian history through its art. They also supported a unique design concept. "When the exhibit team was discussing a design approach," says Foster, "the idea arose that the touch of the hand should be evident throughout." Since the objects are so exquisite and the fine craftsmanship so strong, the team decided that nothing in the presentation should strike a jarring note. Thus, from the hand-painted backdrops (such as the one on the cover), to the silk-screened text panels and oil-painted portraits, to the ornamental railings, to the lighting and music, every detail of the production was hand-produced to support and enhance the artifacts.

Visitors to the exhibition have sensed this subtle chemistry. Some have said that the lights, colors, music and weathered surface of the icon wall worked on their imaginations, briefly propelling them into the Russian world and intensifying their appreciation for the beautiful artworks on display in "Kremlin Gold."

Collection loaned by The State Museums of the Moscow Kremlin. "Kremlin Gold" was organized for its U.S. tour by The Field Museum in partnership with The Houston Museum of Natural Science.

Kremlin Gold Lecture Series



The smiles in "Kremlin Gold" are not only warm and beautiful, but are also deeply connected to Russia's cultural history.

Join us for a series of lectures that will look at Russia's wealth of mineral resources, its artistic and literary culture and great figures from its rich history.

Natural and Cultural Treasures: Gems in Russian Orthodox Religious Icons

Reverend John J. Matusiak, St. Joseph Church, Wheaton, Ill. and Joel Bartsch, Curator, Houston Museum of Natural Science

Learn the history behind the gilded treasures that are used in Russian Orthodox traditions. Explore how Russia's wealth of mineral resources provides exquisite gems, precious metals and spiritual inspiration.

Thursday, Jan. 11, 6:30 p.m.

\$12; students/educators \$10; members \$8



From Kremlin Gold to the Russian Silver Screen

Yuri Tsivian, Soviet Cinema Specialist, University of Chicago

Immerse yourself in Russian film, food, facts and fine arts. Join us for a daylong screening of several Russian film classics. We'll also visit the "Kremlin Gold" exhibition.

Sunday, Feb. 11, 11 a.m.—5:30 p.m.

Without lunch—\$18; students/educators \$15; members \$12

With lunch—\$38; students/educators \$35; members \$32

Cash-bar vodka reception following event

Don't miss these lectures in March:

Great Figures in Russian History

Dr. James C. Craft, Professor of History and University Scholar, University of Illinois at Chicago

Thursday, March 3, 2 p.m.

\$12; students/educators \$10; members \$8

The Face of Russia: Anguish, Aspiration and Achievement in Russian Culture

James H. Billington, Scholar of Russian Culture and the Director of the Library of Congress

This lecture is presented with the Chicago Council on the Arts.

Thursday, Feb. 11, 7 p.m.

Without lunch—\$18; students/educators \$15; members \$12

With lunch—\$38; students/educators \$35; members \$32

Cash-bar vodka reception following event

Upcoming—

Wrapped in Pride: Ghanaian Kente and African American Identity

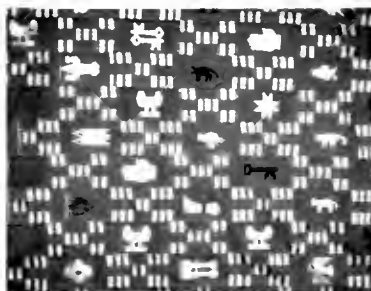
Oprah Winfrey wears it. Maya Angelou and Jesse Jackson wear it. It can be seen at baptisms, graduations and weddings. It may suggest royalty, sacredness or status and has become the most recognizable of all symbols of African identity.

"Wrapped in Pride: Ghanaian Kente and African American Identity" will explore the cultural significance of kente, a vibrant, boldly patterned cloth made by the Asante and Ewe peoples of Ghana. Once known only to West Africans, today kente is produced in greater quantity, incorporated into more forms and exported to more places than any other African fabric.

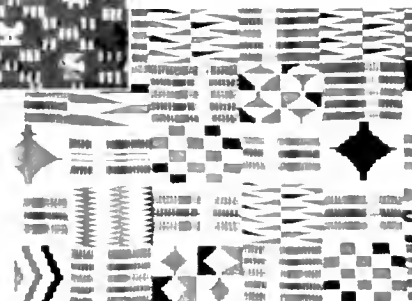
The exhibition, open April 13 through July 15, 2001, showcases approximately 500 objects, including traditional and modern kente cloth, looms, photographs, simulated marketplaces and dressed mannequins in popular and ceremonial settings. The first part of the exhibition traces kente's African roots and the artistry and techniques used to produce it. The second part explores its flourishing presence in the United States since its first introduction by the Black Nationalist and pan-African movements of the 1950s and '60s. Hundreds of variations—from hats, bags and umbrellas to drums, toys and furniture patterns—underscore its impact among African Americans.

"The African American embrace of kente cloth represents the psychological return to and pride in African heritage," says Chapurukha Kusimba, associate curator of African anthropology. "Wrapped in Pride" sets the stage for the inevitable reunion of African people wherever they are. It helps provide answers to a never-ending quest for recognition and, for some, a remedy for the restless soul."

"Wrapped in Pride: Ghanaian Kente and African American Identity" was organized by The UCLA Fowler Museum of Cultural History and The Newark Museum, Newark, New Jersey. The exhibition and its national tour are made possible by Ford Motor Company. The exhibition has received funding from the National Endowment for the Humanities and the National Endowment for the Arts.



Man's kente cloth, Ewe people, Ghana (left). Asante kente cloth, Ghana (below).



African Heritage Festival: A Common Thread

Celebrate African American History Month with us!

FREE with Museum admission. This annual festival celebrates contemporary African cultures and their connections to the United States. Join us for a fun-filled time of family performances, storytelling, scientific demonstrations and hands-on activities.

Saturday and Sunday, Feb. 3–4, 11 a.m.–4 p.m.

Monday and Tuesday, Feb. 5–6, 10 a.m.–1 p.m.

This year's festival will focus on the art and use of traditional African textiles. Festival highlights include:

LECTURES

Madagascar Textiles

Saturday, Feb. 3, 1:30 p.m.

Field Museum Anthropologists Chapurukha Kusimba, Ben Bronson and Judy Odland will explore how textiles relate to Africa's environment, economy and culture.

Of Manes and Man-eating

Sunday, Feb. 4, 1:30 p.m.

Why did the infamous man-eating lions of Tsavo kill more than 100 people? And why don't these two male lions have manes? Find out about the research of Field Museum Zoologist Dr. Bruce Patterson.



Chocolate Chips Theatre Company

PERFORMING ARTS

Spinning Tales

Saturday and Sunday, Feb. 3 and 4, noon and 2 p.m.

Explore the rich cultural history of Africa's textiles at this interactive family performance, specially commissioned from the renowned Chocolate Chips Theatre Company.



Storytelling at the 2000 festival.

African Storytelling with Thetu

Saturday and Sunday, Feb. 3 and 4, 11 a.m. and 3 p.m.

Monday and Tuesday, Feb. 5 and 6, 10:30 a.m. and noon

Experience the engaging tradition of African storytelling. Thetu draws upon her Kenyan heritage to present stories of humor, courage, wisdom and African truths.

SCIENTISTS ON THE FLOOR

Birds of Africa

Visit with Field Museum scientists and see some of Africa's most interesting birds.

Dye-namic Plants!

Learn how to use every-day foods to dye fibers, and take home the beginning of your own artifact.



HANDS-ON FAMILY FUN

Asante Symbols: Adinkra Stamps

Adinkra stamps convey a message. Learn about the cloth, the symbols and African traditions. Discover the meaning behind the designs, many of which symbolize proverbs, ideas and African objects.

Africa Mega Map Challenge

Take the challenge and construct the continent of Africa using our mega puzzle map. See where The Field Museum is conducting research!

World of Weaving Interpretive Station

See and touch woven fabrics from different parts of the world. Learn how these textiles are created through an elaborate process. Discover the significance and importance of kente cloth.

The Great Interchange Interpretive Station

Learn about the origins of specific plants through a map activity and guessing game. Discover how people in Africa have exchanged foods and dramatically influenced global cuisine.

Also look for other learning stations that explore how Africa's fabrics and textiles reflect its diverse cultures.

African Heritage Festival: A Common Thread is made possible through the generosity of Abbott Laboratories.

Performing Arts

A Family Dinosaur Concert: Chicago Chamber Musicians

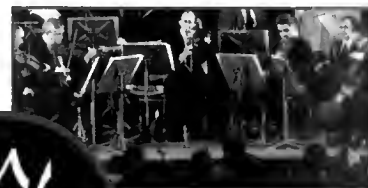
Live narration, a vivid multi-media presentation and Chicago's finest musicians combine to tell the story of Sue the *T. rex*. Join us for a rousing performance of *Tyrannosaurus Sue: A Cretaceous Concerto*, with music and story by Bruce Adolphe. You'll also hear *The Story of Babar*, with text by Jean de Brunhoff and music by Francis Poulenc.

Adults and children ages 3 and up

Sunday, Jan. 21, 11 a.m. and 1 p.m.

All tickets are \$10.

Call 312.CALL.CCM (312.225.5226) to reserve tickets.



SHARON WHITE

New Discoveries Lecture

Ghana's Kingdoms of Gold

Dr. Christopher DeCorse, Associate Professor of Anthropology,
Syracuse University

Discover how the Fante people, who have lived on the coast of Ghana for centuries, influenced the cultural development of sub-Saharan Africa. These skillful traders built a lucrative commerce—first in gold and later in slaves—that brought diverse cultures into contact with each other. Dr. DeCorse has 20 years of field experience in Africa and was a Fulbright scholar and lecturer at the University of Ghana.

Saturday, Feb. 17, 2 p.m.

\$12; students/educators \$10; members \$8



Courses

Ancient Egyptian Magic III: The Realm of the Night

Thomas Mudloff, Consulting
Egyptologist/Website Moderator,
Discovery Channel

Join us for an in-depth look at three philosophical and magical texts that reveal what ancient Egyptians thought about life, death and life after death. *The Egyptian Book of Am-Duat* (Netherworld), the *Book of Caverns* and the *Book of Gates* are the first sacred Egyptian texts to chart the world beyond. Ponder the ancient Egyptian beliefs that darkness is the birthplace of light and that eternal life's home is in the realm of death.

Saturdays, Jan. 20–Feb. 3
(3 sessions), 10 a.m.–1 p.m.
\$80; members \$68

Below is a calendar of the temporary exhibitions you will have an opportunity to visit in 2001. Some dates may change. Remember to call or visit our website for specific information.

Star Wars: The Magic of Myth
Through January 7

The Endurance: Shackleton's Legendary
Antarctic Expedition
Through January 15

Kremlin Gold: 1000 Years of
Russian Gems and Jewels
Through March 30

Special Workshops

All About Movement

Liz Cruger, Green Light Performing Company

Discover the world around you through motion. Learn how reptiles, birds and dinosaurs would move in, around and through various habitats. You may experience life as a young *T. rex* or become a bird flying south for the winter. Wear comfortable clothing. This is yoga for families with a twist!

For adults and children ages 3–5
Saturday, Jan. 20 or Saturday, Feb. 17
(Each workshop is one session.)
9:30–10:30 a.m.
\$10; members \$8



KIMBERLY MAZANEK/G90000C



Fossil Basics

David Dolak, Instructor, Science Institute, Columbia College

Learn to identify different types of fossils in this introductory look at the field of paleontology. Explore fossils from trilobites to graptolites, mollusks and corals. You'll also get to prepare a real fossil fish for research or display. This course offers valuable experience for those interested in our fossil collecting trips.

Wednesdays Jan. 31 and Feb. 7
(2 sessions), 6–8 p.m.
\$42; members \$36

Love Potions: Essencia d'Amour

Kristin Wrede, Aromatic Consultant

Just as Cleopatra used oils from various herbs to fuel her love affairs, you too can take advantage of the ancient art of blending. Use jasmine, rose, sandalwood,

ylang ylang and other mystical oils to create your own intriguing love potion—just in time for Valentine's Day.

Saturday, Feb. 10
11 a.m.–2 p.m.
\$30; members \$25

Shrines to Go

Cyd Engel, Special Projects Manager, Milwaukee Art Museum

Discover how cultures across the globe communicate through personal shrines and devotional imagery. We'll explore the Field's galleries for inspiration and then return to the studio to create our own mixed media shrines, which may be whimsical or serious. No drawing or art experience required. Come prepared to explore, experiment and discover!

Saturdays, Feb. 17, 24 and March 3
(3 sessions), 9 a.m.–noon
\$80; members \$68

Egyptian History: Third Intermediate Period

Frank Yurco, Egyptologist

Find out what life was like in Egypt from 1070–525 B.C., when the high priests at Thebes had as much political power as the royal house at Tanis. Yet this was also a period of relative stability and affluence that left behind some of the richest finds in the history of Egyptian archaeology. Learn about exciting findings and fascinating stories that reveal why this division of power did not also divide the country.

Wednesdays, Feb. 28–April 4
(6 sessions), 6:30–8:30 p.m.
\$85; members \$72



Kachinas: Gifts from the Spirit
Messengers
Through July 22

Between Cultures: Children
of Immigrants in America
January 5 through May 6

Kinetosaurs: Putting Some Teeth
into Art and Science
March 23 through July 8

Special Workshops (continued)

The Two Of Us

Connie Sulkin, Siragusa Foundation Early Childhood Initiative

Join us for an eight-week exploration of The Field Museum. This winter, we'll have fun learning about owls, animal tracks, bears and much more. Each week we will travel the Museum's exhibition halls and enjoy stories, songs, hands-on activities, an art project and a snack.

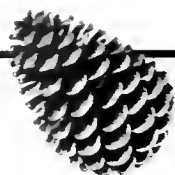
For adults and children ages 3–5

Tuesdays, Jan. 23–March 13

10–11:30 a.m. or 1:30–3 p.m. (Choose one time.)

\$95 per child; \$80 per member child

For each child, one adult attends at no charge.



Naturalist Certificate Program

Deepen your knowledge about the natural environment and share this passion with others. The Field Museum, The Morton Arboretum and the Chicago Botanic Garden are offering an integrated program of nature study for both beginners and more advanced naturalists. Participants can register for courses based on general interest; no prior course work is required. For a certificate, 15 to 17 courses must be completed.

Please note: You must provide your own transportation to off-site class locations.

Plant Families of the Midwest

Patrick Leacock, Department of Botany,
The Field Museum

Use flower structures and other traits to identify common plant families on sight. With more than 2,500 species of flora throughout the region, this skill is useful for naturalists, gardeners, botanical artists and others. Naturalist Certificate Enrichment.

Wednesdays, Jan. 10–Feb. 14,
(6 sessions), 6–8:30 p.m.
\$145; members \$115

Deciduous Trees in Winter

Rich Hyerczyk, Field Museum Instructor

Learn how to identify trees by looking at their buds, fruit, leaf scars, bark and branching pattern. The text *Winter Tree Finder* by May Thielgaard Watts and Tom Watts may be purchased at the first class. Naturalist Certificate Enrichment.

Tuesday, Jan. 23, 6–9 p.m. and
Saturdays, Jan. 27–Feb. 17
(5 sessions), 9 a.m.–noon.
\$145; members \$115



Forest Preserve
District of
DuPage County

Field Ecology: Winter

Liane Cochran-Stafira, Department
of Biology, St. Xavier University

How does an animal's shape help it stay warm? How does wind affect the shape of a tree? Examine how the physical environment influences the lives of plants and animals. The text *Ecology and Field Biology* by R.L. Smith may be purchased at the first class. Naturalist Certificate Requirement, both tracks.

Thursdays, Jan. 25 and Feb. 1 from 7–9
p.m. and Sundays, Jan. 28 and Feb. 4 from
9 a.m.–1 p.m. (4 sessions)
\$125; members \$105

Wrapped in Pride: Ghanaian Kente
and African American Identity
through July 15

In Her Hands: Craftswomen
Changing the World
May 18 through October 28

Living Colors: A Butterfly Garden
May 25 through September 3

Special Workshops (continued)

Story Time: Facts, Fables and Fiction

Hear a story, sing songs and make an art project to take home—all in 20 minutes. This program for young children and their families is sponsored by the Siragusa Foundation Early Childhood Initiative. One adult for every three children, please. Meet in the "Living Together" exhibition on the main level.

1 p.m. every Saturday and Sunday
Additional programs: 1 p.m. Jan. 2–5
Free with Museum admission



KIMBERLY MAZANEK/GN89569



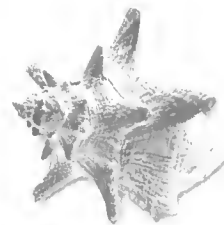
KIMBERLY MAZANEK/GN89569

Swedish Folk Tales

Swedish American Museum,
5211 N. Clark Street

Listen to tales from Sweden's rich folkloric tradition, brought to life on the stage. This program is part of the Cultural Connections series that takes you to area museums to examine cultural artifacts, observe cultural traditions, sample ethnic food and participate in lively discussions.

Sunday, Feb. 18, 3–5 p.m.
\$17; members \$15
To register, call 312.665.7474.



Naturalist Certificate Program (continued)

Northern Illinois Fauna: Winter

Chet Ryndak, Superintendent of Conservation (retired), Forest Preserve District of Cook County

Study area mammals and birds to discover how they've adapted to survive in their environment. The recommended text is *Life in the Cold: An Introduction to Winter Ecology* by Peter J. Marchand. Naturalist Certificate Requirement, both tracks.

Wednesdays, Feb. 21 and 28, 6:30–8 p.m. and Saturdays, Feb. 24–Mar. 10, 9 a.m.–noon (5 sessions)
\$125; members \$105

Coursework completed at any campus will earn credit toward The Morton Arboretum Naturalist Certificate.

NCP Courses at The Morton Arboretum

Call 630.719.2468 for more information.

Field Ecology: Winter • Northern Illinois Fauna: Winter • Conservation Biology • Nature Writing: Interesting Explanations • Plant Families of the Midwest • Conifers in Winter • Deciduous Trees in Winter • Introduction to Botany • Stewardship Forum • Natural History Photography • Astronomy

NCP Courses at the Chicago Botanic Garden

Call 847.835.8261 for more information.

Introduction to Botany • Northern Illinois Fauna: Winter (TENTATIVE) • Nature Writing: Interesting Explanations • Tree Identification and Ecology • Plant Families of the Midwest



JIM SCHULTZ/CHICAGO ZOOLOGICAL SOCIETY



Forest Preserve District of DuPage County

Julie Taymor:
Playing with Fire
June 14 through
November 4

Sigmund Freud:
Conflict and Culture
October 3, 2001 through
January 6, 2002

Cleopatra of Egypt:
From History to Myth
October 20, 2001 through
March 3, 2002

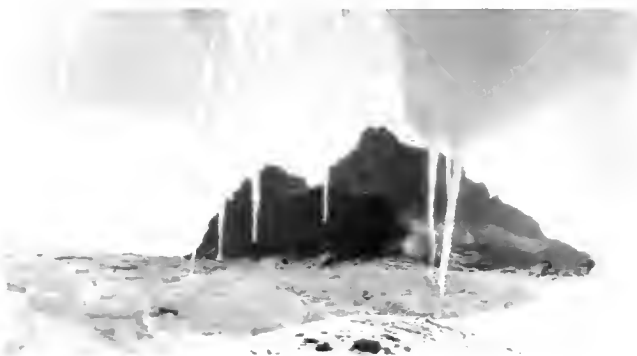
Cheyenne
Opens August 10

Exhibition Tours—Free with Museum Admission

The *Endurance*: Shackleton's Legendary Expedition

Relive Shackleton's dramatic 1914 expedition with a guided tour.

Saturdays, Jan. 6 and 13, 11:30 a.m. and 1 p.m. Also Jan. 4, 9 and 11, 2:30 p.m. and 3:45 p.m.



"Ice Stalactites," Frank Hurly, 1916.

© ROYAL GEOGRAPHICAL SOCIETY

Inside Ancient Egypt

Unlock the secrets of ancient Egyptian mummies. Learn about life and afterlife in this great African civilization.

*Every weekday!
January through March, 1 p.m.*

Northwest Coast Indians and Eskimos

Discover a spectacular array of artifacts depicting two very different North American neighboring environments and cultures.

*Every weekday!
January through March
Mondays at 1:30 p.m., Tuesdays at 11:30 a.m., Wednesdays through Fridays at 11:30 a.m. and 1:30 p.m.*

DAILY HIGHLIGHTS TOURS Visit the exhibits that make this Museum one of the world's finest and hear the stories behind some of these fascinating objects from nature and human culture.

Daily:
*Monday–Friday, 11 a.m. and 2 p.m.
Saturday–Sunday, 11 a.m. and 1 p.m.*

Hands-on Activities and More

Interpretive Station Activities

Every weekend you'll find a selection of hands-on activities throughout the Museum. For example, you may see a soil scientist at work, find out what your name would look like in Egyptian hieroglyphs or dissect an owl pellet to see what the bird ate. Check the informational directories when you arrive at the Museum for a list of each day's activities.

Every Saturday and Sunday!

Pawnee Earth Lodge

Experience life as the Pawnee Indians lived out on the Great Plains. Field Museum staff and docents bring history to life in this full-size replica of a traditional Pawnee lodge. Join us around

the campfire to examine tools and toys made of buffalo and hear stories of what it was like to go on a buffalo hunt.

*Every Saturday and Sunday!
10 a.m.–4:30 p.m.
Weekdays at 1 p.m.*



Scientists on the Floor

Visit with Field Museum scientists to learn about their exciting research. You'll get to see rarely displayed specimens from the Museum's collections.

*Every second Saturday of the month
Jan. 13 and Feb. 10, 11 a.m.–2 p.m.*

Artists on the Floor

Visit with and observe artists as they create finely detailed scientific illustrations. Find out the important role these drawings play in the scientific process.

*Every third Saturday of the month
Jan. 20 and Feb. 17, noon–3 p.m.*

UNKNOWN LEMUR SPECIES IN MADAGASCAR

(continued from page 6)

Microcebus griseonifus, were resurrected from past research on mouse lemurs. A sixth, *Microcebus ravelobensis*, was recently described by a research group from the University of Hannover in Germany, and the seventh is *M. murinus*, originally thought to be the only one living in Madagascar's western forests.

Northwestern University evolutionary biologist Anne Yoder conducted an independent genetic analysis that confirmed the team's results.

Research on lemurs is important from an evolutionary standpoint because they are the most primitive of living primates. "Understanding aspects of lemur biology and evolution gives us a window into the history of more advanced primates, like ourselves," says Rasoloarison.

While mouse lemurs are seen everywhere on the island, it turns out that some species are restricted to very small areas. For example, *M. griseonifus* lives only in the dry, spiny bush at the island's extreme southwestern end, and the reddish-colored *M. berthae* (named for Madame Berthe Rakotosamimanana of the University of Antananarivo, who has made significant contributions to the study of lemurs) is only known in Madagascar's Kirindy Forest.

"Before recent research, we thought that *M. murinus* was the only mouse lemur in all of western Madagascar," says Rasoloarison. "It was assumed that, if one forest was destroyed, the species would still be OK as it could be found elsewhere. Now that we know so many species are involved, it gives new importance to protecting our isolated forests."

Madagascar: so many species, so little time

Madagascar's forests are home to an amazing variety of unique plant and animal life, including probably more than 12,000 species of flowering plants, half the world's chameleon varieties, 300 species of butterflies and nearly 100 species of mammals. Nearly 100 percent of the island's mammals are endemic, which means they exist only there and nowhere else on earth.

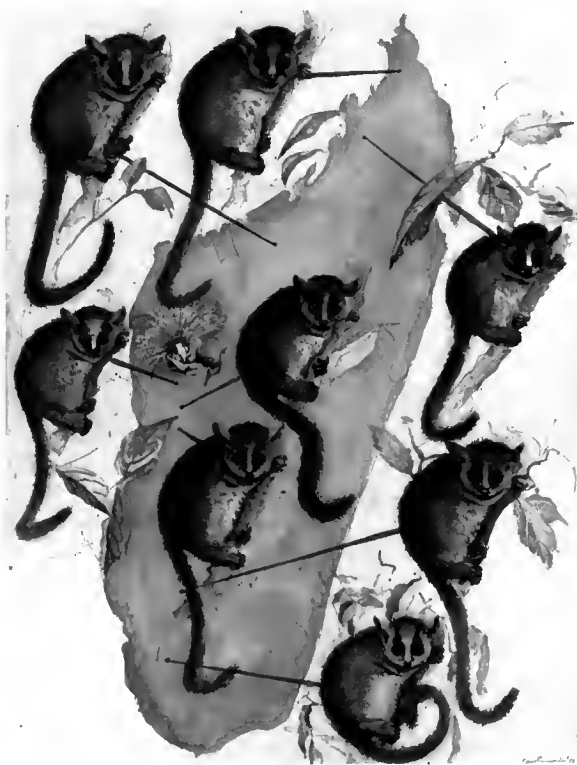
Despite Madagascar's biological riches, it is one of the world's poorest nations, with a per capita income of approximately \$240 per year. About 80 percent of the population are subsistence farmers, many of whom practice traditional "slash and burn" agriculture. As a result, only 10 percent of the island's forests remain, and recent estimates suggest that one to two percent of those are being destroyed each year.

"Anything living in the forest in Madagascar is threatened due to the rapid loss of habitat," says Goodman. In fact, a lemur known as the golden-crowned or Tattersall's sifaka, first discovered just 12 years ago, may soon be extinct because its tiny population is restricted to a part of the country where the forest is rapidly disappearing.

Goodman and other scientists are racing to document the plants and animals in Madagascar's most threatened areas—not only for scientific purposes but to help set conservation priorities. Their work could soon become the only record of many of these species. "At this point, it's not a race to save things; it's a race to know what's there," says Goodman.

In addition to his own scientific research, Goodman has directed the Ecology Training Programme (ETP) of World Wide Fund—Madagascar in association with the country's University of Antananarivo since 1992. He advises 10 graduate students each year, helping them conceptualize research projects, find funding, plan their fieldwork and publish the results.

"I believe the country's greatest hope lies with its young people," says Goodman. "That's why I do what I do." **ITF**



"Madagascar Mouse Lemurs," by Peggy Macnamara, Field Museum artist in residence.

Membership News

ASTC PASSPORT PROGRAM PARTICIPANTS— NOVEMBER 1, 2000 TO APRIL 30, 2001

Local restrictions may apply. Participating museums within 90 miles of each other are not required to offer free admission to each other's members. Museums with local reciprocity agreements are marked with an asterisk (*). Acquaint yourself with the admittance policies of participating sites. The Passport Program entitles visitors to free general admission. It does not include special exhibitions, presentations, merchandise discounts or other discounts associated with museum membership unless stated otherwise. For non-US participants, or to see a complete list, call ASTC at 202.783.7200 ext. 112 or visit www.astc.org.

ALABAMA

Anniston Mus. of Nat. Hist.
Ctr. for Cultural Arts
Gulf Coast Exploreum Mus. of Sci.
McWane Ctr. (Discovery 2000)
Sci-Quest North Alabama Sci. Ctr.
Southern Mus. of Flight
U.S. Space & Rocket Ctr.

ALASKA

The Imaginarium

ARIZONA

Anz. Sci. Ctr.
Flandrau Sci. Ctr. & Planetarium
Lowell Observatory

ARKANSAS

Mid-America Sci. Mus.
Mus. of Discovery

CALIFORNIA

Bay Model Visitor Ctr.
Birch Aquarium at Scripps
Calif. Acad. of Sci.
Calif. Sci. Ctr.
Chabot Space & Sci. Ctr.
Children's Mus. at La Habra
Coyote Point Mus. for Env. Educ.
Discovery Sci. Ctr.
Exploratorium
Explorit Sci. Ctr.
Fresno Metro Mus. of Art, Hist. & Sci.
Humboldt State Univ. Nat. Hist. Mus.
Lawrence Hall of Sci.
Lindsay Wildlife Mus.
Reuben H. Fleet Ctr. Sci. & Tech.
Sacramento Mus. of Hist. & Sci.
San Bernardino County Mus.
Santa Barbara Mus. of Nat. Hist.
Tech Mus. of Innovation
Turtle Bay Mus. and Arboretum
Carter House Nat. Sci. Mus.
Redding Mus. of Art & Hist.
Paul Bunyan's Forest Camp
Redding Arboretum by the River

COLORADO

Discovery Ctr. Sci. Mus.

CONNECTICUT

Maritime Aquarium
Sci. Ctr. of Conn.
Roaring Brook Nature Ctr.
Sci. Ctr. of Eastern Conn.
Yale Peabody Mus. of Nat. Hist.

DELAWARE

Del. Agricultural Mus. & Village
Del. Mus. of Nat. Hist.
Hagley Mus. and Library

DISTRICT OF COLUMBIA

Capital Children's Mus.

FLORIDA

Brevard Mus. of Hist. & Sci.
Children's Sci. Ctr.
Discovery Sci. Ctr.-CFCC
Fairchild Tropical Garden
Fla. Adventure Mus., Charlotte Cty.
Fla. Mus. of Nat. Hist.
FOCUS Ctr.
Gillespie Mus. of Minerals
Gulfcoast Wonder and Imagination Zone
Imaginarium Hands-on Mus. & Aquarium
Mary Brogan Mus. of Art and Sci.
Miami Mus. of Sci. and Planetarium
Mus. of Art & Sci.-Brevard
Mus. of Arts and Sci.
Mus. of Discovery & Sci.
MOSI (Mus. of Sci. & Industry)
Mus. of Sci. and Hist. of Jacksonville

Orlando Sci. Ctr.
South Fla. Sci. Mus.

GEORGIA

Coca Cola Space Sci. Ctr.
Fernbank Sci. Ctr.
Mus. of Arts & Sci.
Nat'l Sci. Ctr. (Fort Discovery)
SciTrek, Sci. & Tech. Mus. of Atlanta

IDAHO

Discovery Ctr. of Idaho

ILLINOIS

Lakeview Mus. of Arts and Sci.
The Sci. Ctr.

INDIANA

Children's Sci. & Tech. Mus. of Terre Haute
Imagination Station By ASSET
Muncie Children's Mus.
Sci. Central

IOWA

Family Mus. of Arts and Sci.
Grout Museums: Bluedorn Sci. Imaginarium
Iowa City Area Sci. Ctr.
Putnam Mus. of Hist. and Nat. Sci.
Sci. Ctr. of Iowa
Sci. Station

KANSAS

Exploration Place
Sternberg Mus. of Nat. Hist.
Univ. of Kan. Nat. Hist. Mus.

KENTUCKY

Highlands Mus. & Discovery Ctr.
Louisville Sci. Ctr.

LOUISIANA

La. Arts and Sci. Ctr.
Sci-Port Discovery Ctr.

MAINE

Children's Mus. of Maine

MARYLAND

Excel Interactive Sci. Mus.
Maryland Sci. Ctr.

MASSACHUSETTS

Children's Mus.
EcoTarium
Mus. of Sci.
Nat'l Plastics Ctr. and Mus.
Robert S. Peabody Mus. of Archaeology

MICHIGAN

Alfred P. Sloan Mus.
Ann Arbor Hands-on Mus.
Cranbrook Inst. of Sci.
Detroit Sci. Ctr.
Exhibit Mus. of Nat. Hist.
Flint Children's Mus.
Hall of Ideas, Midland Ctr. for the Arts
Impression 5 Sci. Ctr.
Kingman Mus. of Nat. Hist.
Mich. Space and Sci. Ctr.
Southwestern Mich. College Mus.

MINNESOTA

Bell Mus. of Nat. Hist.
Duluth Children's Mus.
Headwaters Sci. Ctr.
Heritage Hjemkomst Interpretive Ctr.
Sci. Mus. of Minn.

MISSISSIPPI

Russell C. Davis Planetarium

MISSOURI

Discovery Ctr. of Springfield
Sci. City at Union Station
St. Louis Sci. Ctr.

MONTANA

Mus. of the Rockies

NEBRASKA

Edgerton Explorit Ctr.
Omaha Children's Mus.
Univ. of Neb. State Mus.

NEVADA

Children's Mus. of Northern Nev.
Lied Discovery Children's Mus.

NEW HAMPSHIRE

Children's Mus. of Portsmouth
Christa McAuliffe Planetarium
SEE Sci. Ctr.

NEW JERSEY

Liberty Sci. Ctr.
Newark Mus. & Dreyfus Planetarium

NEW MEXICO

Explora Sci. Ctr. and Children's Mus.
Las Cruces Mus. of Nat. Hist.
N.M. Mus. of Nat. Hist. and Sci.
Space Ctr.

NEW YORK

Brooklyn Children's Mus.
Buffalo Mus. of Sci.
Tifft Nature Preserve
Hudson River Mus.
Mid-Hudson Children's Mus.
Milton J. Rubenstein Mus. of Sci. & Tech./The Discovery Ctr.
N.Y. Hall of Sci.
N.Y. State Mus.
N.Y. Transit Mus.
Northshore Sci. and Tech. Ctr.
Roberson Mus. and Sci. Ctr.
Rochester Mus. & Sci. Ctr.
Schenectady Mus.
Sci. & Discovery Ctr.
Sci. Discovery Ctr. of Oneonta
Science Center
Staten Island Children's Mus.

NORTH CAROLINA

Catawba Sci. Ctr.
Discovery Place
Health Adventure
Imagination Station
Nat. Sci. Ctr. of Greensboro
N.C. Mus. of Life and Sci.
N.C. Mus. of Nat. Sci.
Rocky Mount Children's Mus.
Schiele Mus. of Nat. Hist. & Planetarium
SciWorks, Sci. Ctr. & Env. Park
Western N.C. Nature Ctr.

NORTH DAKOTA

Gateway to Sci.

OHIO

Boonshoft Mus. of Discovery
The Children's Mus. of Cleveland
Cincinnati Mus. Ctr.
COSI Columbus
COSI Toledo
Great Lakes Sci. Ctr.
Health Mus. of Cleveland
Inventure Place, National Inventors Hall of Fame
McKinley Mus.

OKLAHOMA

Kirkpatrick Sci. and Air Space Mus. at Omniplex

OREGON

A.C. Gilbert's Discovery Village
Ore. Mus. of Sci. and Industry
Univ. of Ore. Mus. of Nat. Hist.
WISTEC, Willamette Sci. & Tech. Ctr.

PENNSYLVANIA

The Acad. of Nat. Sci.

Carnegie Sci. Ctr.
Discovery Ctr. of Sci. & Tech.
Franklin Inst.
North Mus. of Nat. Hist. and Sci.
Pittsburgh Children's Mus.
Please Touch Mus.
Reading Public Mus.
Whitaker Ctr. for Sci. and the Arts

RHODE ISLAND

Thames Sci. Ctr.

SOUTH CAROLINA

Roper Mountain Sci. Ctr.

SOUTH DAKOTA

Children's Sci. Ctr.
Kirby Sci. Discovery Ctr.
South Dakota Discovery Ctr. & Aquarium

TENNESSEE

The Children's Mus. of Memphis
Cumberland Sci. Mus.
East Tennessee Discovery Ctr.
Hands On! Regional Mus.
Hands-On Sci. Ctr.
Pink Palace Family of Mus.

TEXAS

Austin Children's Mus.
Children's Mus. of Houston
The Cook Arts, Sci. and Tech. Ctr.
Dallas Mus. of Nat. Hist.
The Discovery Sci. Place
Don Harrington Discovery Ctr.
Fort Worth Mus. of Sci. and Hist.
Houston Mus. of Nat. Sci.
Insights El Paso Sci. Mus.
McAllen Int'l Mus.
McDonald Observatory Visitor's Ctr.
The Mus. of Health & Medical Sci.
The Science Place
Sci. Spectrum
Space Ctr. Houston
Witte Mus.

UTAH

The Children's Mus. of Utah
Hanson Planetarium
Utah Mus. of Nat. Hist.

VERMONT

Fairbanks Mus. and Planetarium
Lake Champlain Basin Sci. Ctr.
Montshire Mus. of Sci.

VIRGINIA

Danville Sci. Ctr.
Sci. Mus. of Va.
Sci. Mus. of Western Va.
Shenandoah Valley Discovery Mus.
Va. Air & Space Ctr.—Hampton Roads
Hist. Ctr.
Va. Aviation Mus.
Va. Discovery Mus.
Va. Living Mus.
Va. Mus. of Nat. Hist.

WASHINGTON

Columbia River Exhibition of Hist., Sci. and Tech. (CREHST)
Three Rivers Children's Mus.

WEST VA.

Sci. Ctr. of W.Va.
Sunrise Mus.

WISCONSIN

Discovery World: James Lovell Mus. Of Sci., Economics, & Tech.
Milwaukee Public Mus.

WYOMING

Wyo. Sci. Adventure Ctr.

26-YEAR VOLUNTEER WINS LIFETIME ACHIEVEMENT AWARD

Amy Cranch, Editor

Many of us remember something—a defining event, an influential person, a favorite movie—that inspired us to follow our life's interests. For Peter Gayford, a book on Troy that he read in high school stirred a fascination with history that has led him through, among other things, 26 years of volunteer service to The Field Museum.

Last fall, the Illinois Association of Museums gave Gayford the Lifetime Volunteer Achievement Award, a prestigious recognition for the nearly 10,500 hours he has dedicated to the Field since 1974. He was recently appointed as an associate in the Department of Anthropology for his contributions.

In the 1970s, Gayford researched, photographed and proofread the Chinese and English texts for a catalogue of Chinese rubbings. He then helped survey the Museum's Egyptian collection and restore the tomb in preparation for our renowned "King Tut" exhibition. In the 1980s he assisted in cataloging a massive collection of clothes, pottery, weapons, religious articles and other items that Presbyterian missionaries had collected from various countries between 1850 and 1910.

Since 1996, Gayford has worked with Chapurukha Kusimba, associate curator of African anthropology, on projects related to African weaponry. Inspired by a rich collection that includes arrows, bows, spears, shields and knives, Gayford and Kusimba are working to standardize the collection's descriptions, determine who made the weapons and where, understand their multiple uses and meanings and provide insight into how warfare shaped Africa's complex ethnic groups.

"Peter and I have become quite good friends," said Kusimba. "Besides working on scientific issues, I value Peter's counsel as a senior colleague at the Field. His dedication to the collections and collections-based research is infectious."

Gayford is a testimony to how volunteering can make a difference to many people, including oneself. "The Field Museum allows me to follow my interests and think for myself," he said. "I always feel comfortable. It's like a family here."



JOHN WEINSTEIN/GN89966.13C

Peter Gayford (left), volunteer, and Chapurukha Kusimba, associate curator of African anthropology, demonstrate how the markings on shields might indicate a particular clan, an individual's status or how it was used.

Volunteering at The Field Museum

Volunteers provide the vital link that helps bring The Field Museum alive for millions of visitors each year. Opportunities are available in nearly every department, both in the public areas and behind the scenes. Whether interpreting an exhibit, assisting with school or public programs, providing general administrative support or involved in the care or research of our collections, volunteers learn about our planet's remarkable natural history while also helping to sustain the Museum's ongoing operations.

Volunteers generally work two to four days per month and are asked to commit one year to the Museum. Short-term or more flexible commitments may also be available. Benefits include, among many, free admission, discounts in our stores and restaurants, reduced fees for educational programs and invitations to special previews and events. You must be 16 to apply.

For information or to apply, call 312.665.7277. You may also access the volunteer application and consent form through the "Museum Information" section of our website at www.fieldmuseum.org.

A REAL UNDERGROUND ADVENTURE

It's easy to get lost at the Field if you're not familiar with its layout. You may be looking for the restroom but find yourself in the



Eric and George Penokie of Rochester, Minn., were greeted by this bug as the millionth visitors to "Underground Adventure."

lunchroom. You may stumble across an exhibit room that you've never seen before. And just when you thought you were on the first floor...

That's what happened to George Penokie and his 10-year-old son, Eric, when they were visiting from Rochester, Minn. But a series of wrong turns unexpectedly put them in the right place at the right moment.

The Penokies were the 1-millionth visitors to enter "Underground Adventure," our permanent exhibition that opened in 1999. A giant bug and several media were on hand to

grant the lucky father-son duo a trip for four to the Grand Canyon.

"What if we had hit one more stop light or gone to a different exhibit?" asked George. "If we had done any little thing different, we wouldn't have won."

Eric, who has never been to the Grand Canyon, was ecstatic. "I saw the bug and couldn't figure out what was happening. Then I saw my dad's name on the certificate and was like, 'We won!'"

Let's just hope the bugs the Penokies encounter in the Grand Canyon aren't as big and talkative as the one they met in "Underground Adventure!"

MAKING A CULTURAL CONNECTION



Japanese obon dancing.

Museums are wonderful places to learn about contemporary communities, and Chicago is one of the world's premier museum cities. The Field's Center for Cultural Understanding and Change, along with 15 ethnic museums and cultural centers, offers a unique program called Cultural Connections. Acting as an "urban anthropologist" you can travel to different cultural institutions to meet people from diverse backgrounds and discover reasons behind cultural diversity.

Using the anthropologist's technique of participant-observation, you can examine museum collections, observe cultural traditions and partake in fascinating discussions. A wonderful assortment of ethnic foods is served at each event.

Tickets are \$17/\$15 for members. Pre-registration is required. For more information, call 312.665.7474, e-mail anthro@fmnh.org or visit www.fieldmuseum.org.

Swedish Folk Tales

Swedish American Museum,
5211 N. Clark Street

Tales from Sweden's rich folkloric tradition are brought to life on stage.

Sunday, Feb. 18, 3–5 p.m.

Ukrainian Immigration to Chicago

Ukrainian National Museum,
721 N. Oakley Boulevard

Reflect on why Ukrainians came to Chicago and, more importantly, why they stay.

Saturday, March 10, 1–3 p.m.

Purim Celebration

Speritus Museum,
618 S. Michigan Avenue

Celebrate the annual Jewish holiday of Purim, commemorating Queen Esther's rescue of Persian Jewry from certain death.

Thursday, March 29, 6–8 p.m.

Chicago's Global Communities

Chicago Historical Society, Clark Street at North Avenue

Learn about how Chicago's rich ethnic diversity has grown since 1945.

Thursday, April 5, 6–8 p.m.

Amber and Its Place in Lithuanian Culture and Art

Balzėkas Museum of Lithuanian Culture, 6500 S. Pulaski Road

Explore the historical, cultural and artistic significance of Lithuania's only national gem.

Wednesday, April 25, 6–8 p.m.

Shared Stories—A Joint Event

Korean American Resource and Cultural Center and Filipino American Historical Society, 3952 N. Ashland

Hear humorous experiences of Korean and Filipino immigration.

Thursday, May 17, 6–8 p.m.

Chicago's Southeast Side: A Community Story

Southeast Historical Society, 39958 E. 106th Street

Go on a student-led historical tour of Chicago's Southeast side.

Saturday, May 19, 10 a.m.–2 p.m.

KREMLIN GOLD BALL REAPS A FORTUNE

More than 1,000 guests came to The Kremlin Gold Ball on Oct. 20, 2000, to help The Women's Board raise more than \$410,000 for The Field Museum's research and education programs. The gala marked the opening of "Kremlin Gold: 1000 Years of Russian Gems and Jewels," as guests delighted in gazing at the opulent objects on

display, including thousand-year-old church icons, diamond-encrusted crowns of the tsars and two Fabergé Easter eggs.

Other elements of the evening reflected the exquisite beauty and detail of the exhibit itself. George Jewell Catering Services LTD catered a superb dinner, and Brown-Forman

Beverages Worldwide donated the fine wines. Flowers by Heffernan Morgan, Inc. provided the stunning décor, flooding Stanley Field Hall in a sea of gold beneath a halo of eight chandeliers suspended from the ceiling. Guests packed the floor, dancing to The Bob Hardwick Sound.



PHOTOS BY CHERRI EISENBERG

1 Caryn Harris (left) and Diana Mayer, co-chairmen of The Kremlin Gold Ball, view the gold sarcophagus cover made for Prince Dmitry, the youngest son of Ivan the Terrible. **2** Barbara Pearlman (right), president of The Women's Board, with her husband, Jerry. **3** Mayor Richard M. Daley and Field President and CEO John McCarter welcome Dr. Irina Rodimtseva, director of the Moscow Kremlin's State Historical-Cultural Museum Preserve, to the ball.

INVESTING IN THE FIELD: THE ANNUAL FUND

What is the Annual Fund?

The Annual Fund strengthens The Field Museum's mission to offer education, exhibition and research programs by supporting its ongoing operations. We need your contributions to help refurbish collections, develop public programs and maintain and improve our historic building.

How is the Annual Fund different from Membership?

The Annual Fund gives you the opportunity to further support the Field beyond the cost of membership. A contribution to the Fund includes benefits of a one-year family membership and invitations to exclusive programs and previews. If you choose to waive your benefits, your entire contribution is tax-deductible.

Annual Fund Levels:

Field Contributor	\$100-249
Field Adventurer	\$250-499
Field Naturalist	\$500-999
Field Explorer	\$1,000-1,499
Founders' Council	\$1,500 and above

How can I make a contribution?

Contributions to the Annual Fund can be made by cash, check, credit card or appreciated securities. A matching gift from your company could double your contribution and place you at a higher level. Please check with your employer to see if it provides this opportunity. For more information or to make an Annual Fund contribution, please contact Heather Scott at 312.665.7784.



MARK WIDHALM/CN999477C

Annual Fund supporters attended a private viewing of "Kremlin Gold" and other special exhibits on Oct. 30, 2000. The evening also featured a lecture by Alexis de Tiesenhausen, director of Russian art for Christie's New York, on Russian art history's influence on Fabergé.

From the Archives

Mark Schmeltzer, Writer, Development Department

The small statues with Bill Turnbull, curator emeritus of fossil mammals, pose interesting questions. What was the man with the headphones listening to before he fell asleep? What is the bearded man looking at? And where is the monkey taking the man with the helmet? The answer to all three is space.

In 1963 the Museum's Department of Geology, headed by Dr. Rainer Zangerl, created a series of exhibits on space geology to celebrate Chicago's Space Month. Among the displays were light-hearted sculptures representing the history of space exploration, including Greek astronomer Hipparchus, who estimated the motions and

distances of planets; Galileo, who invented the telescope; and a modern man urged on by his pioneering cousin, the monkey.

Turnbull recalls that the sculptor who created the figures, a former medical illustrator named Tibor Perenyi, had escaped from Hungary after the Soviets suppressed an uprising there in 1956. Perenyi then became the Museum's geology artist.

Perenyi asked geology staff to model for the sculptures. Zangerl, for example, represented Galileo. Hipparchus, Turnbull believes, was really Robert Dennison, former curator of fossil fishes. And Turnbull himself inspired the sleeping NASA man. "This is the man who keeps in touch with the astronauts in outer space. Of course, there's not much to do," he laughs, "so you go to sleep."

Who was the slim astronaut being led to duty by the space-savvy chimp? While the helmet makes it difficult to confirm, Turnbull thinks it was really Eugene Richardson, "because he was the skinniest guy in the department... Even the space suit itself is skinny despite their normal bulky design."

We have witnessed incredible milestones in space exploration. In 1957, the Soviet Union launched Sputnik 1, laying the grounds for the international race to space. In 1969, astronauts Neil Armstrong and Edwin "Buzz" Aldrin made the legendary landing on the moon and returned with rock and soil samples. Probes have explored Jupiter, Saturn, Mars and other areas of the solar system. Reusable space shuttles have enabled astronauts to perform dangerous, complex work in space. The Hubble telescope collects more data than is possible from the ground, shedding light onto the origins of our universe. Even more importantly, cooperation has replaced competition, as U.S. and Russian astronauts work side-by-side and 16 nations have banded together to bring about the International Space Station.

In the early 1960s, Museum research focused on meteorites, "visitors from an extinct planet," as the only tangible source of knowledge about other planets. Today, Meenakshi Wadhwa continues to study pieces of Mars, asteroids and the moon that have arrived on Earth as meteorites. She hopes they will reveal information about how the solar system and its planets were formed and is establishing a state-of-the-art age-dating laboratory to uncover glimpses of the creation of the universe.



Bill Turnbull, curator emeritus of fossil mammals, houses these statues from a 1963 exhibition on space geology in his office. The reclining man was modeled after him.

MARK WIDHALM/GN89568.12C

Ask A Scientist

Send your questions to Amy Cranch, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL, 60605, or via e-mail at acranch@fmnh.org. Due to the volume we receive, only the questions chosen for In the Field will be answered. An archive of previous questions can be found in "quick links" on our website at www.fieldmuseum.org.

Why do shorebirds hang out so far from the water, such as at the Skokie Swift CTA station? Was this area once a wetland?

The term "shorebirds" refers to members of the order *Charadriiformes*, which represents some 300 species worldwide, including sandpipers, plovers, terns and gulls. Although many species are found near water, others have discovered feeding and living opportunities away from water. In our area, ring-billed and herring gulls fly from their lakeshore roosting areas daily to forage in places like city dumps and mall parking lots.

The killdeer, a plover species common around Chicago in the non-winter months, also forages or nests in open habitats that are not necessarily near water, including cemeteries, parks and parking lots. The Skokie Swift station could have been a wetland at some point, but having evolved to use a variety of open urban habitats, shorebirds probably frequent the area today for its foraging opportunities.

John Bates
Assistant Curator, Department of Zoology,
Division of Birds

What North American insects are most deadly to humans?

There are no North American insects that are normally fatal to humans. However, while most people are not particularly sensitive to wasp, bee or ant stings, some individuals may succumb to anaphylactic shock or die unless treated immediately. The harvester ant (*Pogonomyrmex*) of the western United States is generally considered to have the most painful sting, with intense pain lasting up to four hours.

Also, mosquitoes carry potentially dangerous diseases. In Illinois, for example, the house mosquito (*Culex pipiens*) carries a form of St. Louis encephalitis, and the eastern tree-hole mosquito (*Aedes triseriatus*) carries LaCross encephalitis. Both diseases can produce flu-like symptoms and may be fatal in a small percent of the population.

Philip Parrillo
Curatorial Assistant, Department of Zoology,
Division of Insects

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Field Museum Tours at a Glance

For more information or free brochures, please call Field Museum Tours at 800.811.7244, or send them an e-mail at fmtours@sover.net. Please note that rates, dates and itineraries are subject to change and that prices are per person, double occupancy.

Costa Rica Adventure

Feb 25–March 6, 2001 (10 days)

Costa Rica's natural heritage is one of astonishing diversity. Our itinerary includes the jungle river channels of Tortuguero on the Caribbean coast, Poas Volcano and the cloud forests of Monte Verde high in the central mountains and Palo Verde's wildlife areas on the Pacific. Optional extension to Tamarindo Bay.

Museum Leader:

Botanist William Burger

*Price: \$3,995, including
airfare from Chicago*

Baja: Among the Great Whales

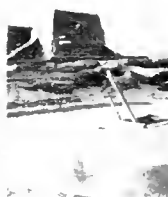
March 9–17, 2001 (9 days)

Each winter gray whales migrate south from their arctic feeding grounds to breed and rear their young in Baja's sheltered lagoons. Zodiac landing craft give you a water-level perspective on these incredible mammals. Enjoy snorkeling and kayaking among Baja's uninhabited desert islands.

*Price: \$2,990 and higher, not
including airfare*

An Insider's Tour of Santa Fe

April 29–May 4, 2001 (6 days)



Led by Field Anthropologist Jonathan Haas, a native of New Mexico, this short trip offers a splendid combination

of archaeological sites, museums, cultural centers, artist and craftsmen's workshops, outstanding restaurants and a fine hotel. Highlights include the prehistoric ruins of Poshu-Ouinge and Sapawe, ancient Taos, historic Pecos, the San Felipe Pueblo's Green Corn Dance and Georgia O'Keeffe's house.

Museum Leader:

Anthropologist Jonathan Haas

Price: TBA

Circumnavigation of Crete

May 3–13, 2001 (11 days)

Circumnavigate Crete aboard a luxurious 34-passenger yacht, tracing the rise and fall of the powerful Minoan civilization. Visit Lasithi, birthplace of Zeus. View lofty mountains, dramatic gorges, quaint villages and breathtaking ocean views. Visit the wildly beautiful Kourtalio Gorge, the Frangokastello fortress and Europe's only palm-tree forest.

Museum Leaders:

*Archaeologist David Reese and
Anthropologist Catherine Sease*

*Price: \$3,795 and higher, not
including airfare*

The Geology and History of New Zealand

Nov 3–21, 2001 (19 days)

New Zealand's diversity will astound you. On North Island visit Goat Island Marine Reserve, Tongariro National Park, the NZ Maori Arts and Crafts Institute, Tokomaru Bay, Gisborne, Wellington's Museum of New Zealand and Botanic Gardens. On South Island tour Christchurch's Canterbury Museum, Dunedin, Queenstown and Milford Sound.

*Museum Leaders: Anthropologist
John Terrell and Geologist Scott
Lidgard*

Price: TBA



Two Field Museum curators, leading experts on the cultural and geological history of New Zealand, share their vast experience and insights as well as special contacts during our custom-designed tour of both North and South Islands.



COURTESY OF INTERNATIONAL EXPEDITIONS

Amazon by Riverboat

Dec 1–9, 2001 (9 days)

Travel aboard a 14-cabin riverboat exploring the remote upper reaches of the Amazon River system. Experience the forest and wildlife of the Amazon Jungle. Optional extension to Cuzco and Machu Picchu.

Leader and price: TBA

"My husband, sister and I went on the Amazon riverboat tour last December. Field Museum tours are first class. The riverboat was clean and comfortable with a great crew. The food was good. The company is always interesting. The villages we visited were filled with excited children and adults who were pleased we were there; our reception was always warm and comfortable. It only rained hard once and cleared up, and we had little trouble with mosquitoes. Our wildlife excursions were fun and informative. I never felt unsafe in Lima. This is the type of adventure you couldn't do alone without a package like this. In short, go for it!"

COURTESY OF ROBERT DEMAYO

INTHEFIELD

March
April
2001

The Field Museum's Member Publication



Hilltop Terrace
Excavations in Mexico

Kinetosaurs:
Putting Some Teeth
into Art and Science

Support Grows for Museum Expansion Plans



JOHN WEINSTEIN / GMB8119 6

There has been a lot of excitement over the past few months surrounding the plans to renovate Soldier Field. We are indeed looking forward to the 2,500-car parking facility across the street and recapturing 19 acres of parkland on the Museum Campus.

As you may know, we have big plans also—to build a new research center for our invaluable anthropology, zoology and geology collections; to construct a new accessible entrance on the building's east side for school children and people with special needs; and to retool the Museum's loading dock, which each day accepts scientific collections, exhibit components, retail deliveries and, last spring, our *T. rex* named Sue. The new East Entrance has become a high priority since the changes planned for the Museum Campus and resulting traffic flow would otherwise force

busloads of schoolchildren and special-use visitors to make the long, arduous walk to the handicapped-accessible West Entrance.

Our plans have received a great deal of favorable coverage in the local media. In the *Chicago Tribune* on Jan. 14, the headline read, "Space to grow becoming thing of the past at Field." The extensive article underscored both the international significance of the Museum's 21.8 million objects and specimens and the fact that there is inadequate room to house, conserve and research new collections.

The *Chicago Sun-Times* story on Jan. 8, "Field lobbies for \$60 million," described the Museum's work to obtain State funds for the building project. And in a Jan. 22 *Crain's Chicago Business* editorial, "Backing Field Museum's funding bid is a natural," the editorial board voiced strong support of our State request. "For Governor George Ryan and the General Assembly," it said, "one of the bottom-line questions will be: Is this a good investment for the public? The answer is yes."

During the State's legislative session, we will be looking to our Museum members and other close friends for support in Springfield. In the Museum's

great Stanley Field Hall, thousands of visitors have already signed postcards that are being delivered to legislators, the Governor and the Mayor. We need all of your help to get this vital support from the State of Illinois. Write, call or email your elected state officials, including Governor Ryan, asking for their support. (Visit the "find districts/officials" link at www.elections.state.il.us for contact information.) Please also contact the four legislative leaders—Senate President James "Pate" Philip, Senate Minority Leader Emil Jones, Speaker of the House Michael Madigan and House Minority Leader Lee Daniels. We appreciate your support.

John W. McCarter, Jr.
President & CEO

About *In the Field*?

We mentioned in our last issue that we will be introducing content and design improvements to *In the Field* throughout the year. You might notice that we are using new fonts, colors and icons, representative of the Museum's standards, and have streamlined the design of several sections. Please send comments or questions to Amy Cranch, publications manager, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496, or via email at acranch@fmnh.org.

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The cover image, courtesy of The Children's Museum of Indianapolis, is from "Kinetosaurs: Putting Some Teeth into Art and Science," open March 23 through July 8, 2001.

The Field Museum salutes the people of Chicago for their long-standing, generous support of the Museum through the Chicago Park District.

The Field Museum
1400 South Lake Shore Drive
Chicago, IL 60605-2496

312.922.9410
www.fieldmuseum.org

The **Field**
Museum



LINDA M. NICHOLAS/00 10 8

Majestic hilltop ruins in Mexico reveal much about their ancient inhabitants.

Photo at left: An offering found at El Palmillo.



GINA GRILLO/08 15 97

Gina Grillo shares what drew her to photographing immigrant children.

Photo at left: India Independence Day.



DIANE ALEXANDER WHITE

Find out about movable, life-size dinosaur sculptures, Earth Month activities, fieldtrips and more in Your Guide to the Field.

Millions of students nationwide are taking e-fieldtrips with The Field Museum.

Photo at left: Participants in an e-fieldtrip about Sue.

They may not have been nominated for an Academy Award, but the dozen or so films shot at the Field span 8 decades and many subjects.

Shedd Aquarium Shedd Aquarium's Oceanarium turns 10 in 2001. To celebrate, Shedd offers a variety of special events in its renowned Pacific Northwest coastal habitat. Guests can watch the beluga whales and Pacific white-sided dolphins learn an all-new behavioral program during regularly scheduled Oceanarium presentations, then talk with animal-care staff members afterward about the techniques used to train marine mammals and other animals. The new presentation debuts on April 27, along with new exhibits in the Oceanarium's underwater viewing gallery and movies in Phelps Auditorium. Check Shedd's website, www.shedd Aquarium.org, for specific "Oceanarium Turns 10" events, or call 312.939.2438.

Adler Planetarium Enjoy the spectacle of the starry sky and experience Far Out Fridays at the Adler Planetarium on the first Friday of every month in 2001. Scope out the family activities from 5 to 10 p.m., including: telescope viewing; unlimited shows in the historic Sky Theater and the world's first StarRider™ Theater; live lectures by Adler astronomers; hands-on activities; special demonstrations; and gallery and Doane Observatory tours. Admission for Far Out Fridays is \$13 for adults, \$10 for children/seniors and \$5 for members. A Family Star Pack is \$40 (2 adults/2 children or 1 adult/3 children). For information, visit www.adlerplanetarium.org or call 312.922.STAR.

El Palmito: A Terrace Site in Oaxaca, Mexico

Gary M. Feinman, Chair and Curator of Anthropology; Linda M. Nicholas, Adjunct Curator of Anthropology



LINDA M. NICHOLAS/95

The hilltop terraced site of El Palmito, one of more than 1,400 artificially flattened terraces in the Valley of Oaxaca in southern Mexico.



A wild variety of maguey, a succulent plant that has been an important food source in the region for thousands of years.

More than 100 of these majestic hilltop ruins have been reported and mapped in the Valley of Oaxaca since the late 1970s. At times in the past, especially during the Classic period (ca. A.D. 200–800), these densely populated settlements housed almost two-thirds of the valley's population. Yet few of them, other than the region's prehispanic capital, Monte Albán, have been the focus of systematic archaeological excavation. Most valley fieldwork has concentrated on elite contexts, namely temples and tombs. Consequently, we know very little about how the ancient inhabitants of these settlements, the Zapotecs, lived, other than that they built their houses on artificially flattened spaces carved into the mountain slopes, often high above the valley floor.

Our aim is to discover the nature of household organization and economic activities at these Zapotec terrace sites by excavating at El Palmillo, a large hilltop site with roughly 1,400 terraces in the dry, eastern part of the valley. Assisted by William Middleton, a Field postdoctoral research scientist, we now have completed two seasons of a long-term excavation project at El Palmillo. Given our interest in domestic structures and activities, we started our investigations in 1999 on some of the lower terraces, away from the public core of the settlement and to ease the logistical aspects of

our work, including a 20-minute walk up a steep, rocky slope.

Ceramics recovered during earlier studies at El Palmillo indicated a long history of occupation, from ca. 300–200 B.C. up to the Spanish conquest in the early 1500s. The site was small at the beginning, with the earliest inhabitants settled on just the hill's summit and upper slopes. As the population grew, the settlement spread to the lower slopes where we conducted our excavations, while the major ceremonial, public core remained on top of the hill. The first terraces and houses in the residential area we excavated appear to have been built at the end of the Terminal Formative or very early in the Classic period (ca. A.D. 150–250). Although dispersed settlement continued in other parts of the site (both up- and down-slope), the final or uppermost construction episode on the excavated terraces dates to late in the Classic period (A.D. 600–800).

In 1999 we excavated three terraces completely (1147, 1148 and 1162) and uncovered a series of rooms and structures around small patios, some with plaster floors. At the north end of the excavation area, we discovered a large, shallow oven that appears to have been used to roast maguey, a succulent plant that grows throughout the region. Below this oven, we found a smaller but more formal stone-lined oven and the stone foundations of several large structures. All of these features extended north onto an adjacent terrace (1163).



Crew members excavating residential architecture on terrace 1163 at El Palmillo.

We returned to the same part of the site in 2000 to complete excavation of terrace 1163 and uncover the remaining features. Our aim was to further clarify the architectural connections between the terraces and intensively investigate the large ovens. The ovens are significant because the modern village's major industry is the production of mescal, an alcoholic beverage made from maguey. Instead of making mescal, the prehispanic inhabitants may have used the ovens to roast the heart of maguey for food.

During the first two field seasons, we exposed an area of approximately 480 square meters. In some places, we excavated almost two meters of prehispanic deposits, much of which was intentional construction fill, before reaching bedrock. One thing we have learned during our work at El Palmillo is that erecting terraces involved more construction than we previously imagined. The settlement's prehispanic occupants did not simply follow or tinker with the contour of the natural hill

when building terraces. Rather, construction was a monumental enterprise that purposely created a human-made landform. Even nonscientists can see that humans modified the hills, as Holmes noted 100 years ago. Residential terrace life appears to have involved regular episodes of wall construction, terrace maintenance and spatial modification, all of which required considerable labor and coordination.

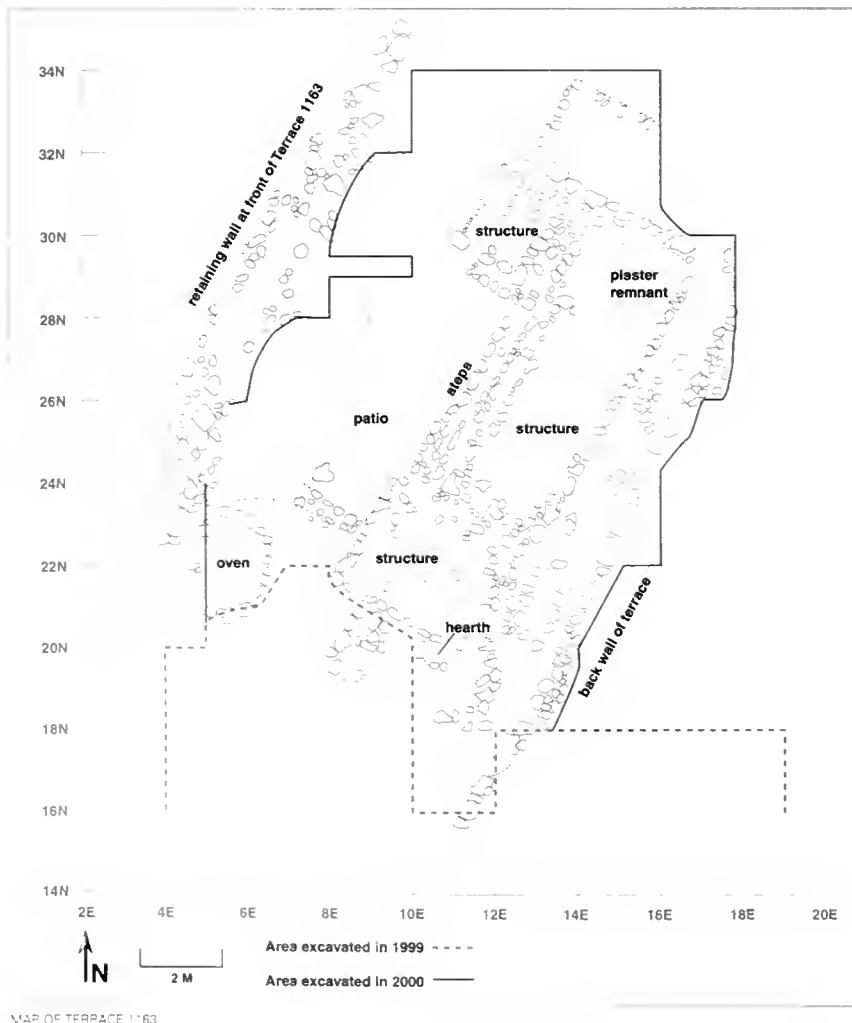
After their initial construction, the terraces appear to have undergone a cycle of gradual accumulation of sediments and minor repairs followed by major episodes of renovation. During major renovations, terrace walls were raised and surfaces covered by considerable layers of new, often sterile sediment. Terrace sites were at once holistic architectural entities—giant tiered features that reshaped large natural hills—and modular settlements composed of a series of roughly similar units.

During 1999 and 2000, we defined two residential architectural complexes consisting of several discrete but closely connected rooms around three sides of a central patio. We also uncovered several small residential structures; 26 burials, including a small tomb; 14 offerings; and a dozen fire installations, including the two large maguey ovens. The architectural complexes and most of the other structures underwent multiple episodes of construction or were closely superimposed atop previous structures.

Although the two architectural complexes are situated on separate terraces, they are remarkably similar in construction and basic layout. In both, a narrow rectangular structure is located toward the back, east side of the terrace and links two smaller rooms at the north and south ends. These structures surround a small central patio, leaving the front, west side of the terrace open. The northern structure had a mortuary function, as a number of burials were uncovered in and around them during both excavation seasons. The long, eastern structures are especially similar, constructed with flat foundation stones and well-made plaster floors. The southern structures are more square shaped.

The prehispanic Zapotecs generally buried their dead near their homes, often under house or patio floors or in small domestic tombs, presumably to reflect familial continuity. Burials at El Palmillo largely conform to these patterns, although burial location varied according to an individual's age. Most of the adults were interred in formal burial

Plan of the residential structures surrounding an open plaza that were discovered during the 2000 excavations at El Palmillo.





LINDA M. NICHOLAS/00-10-8

One of the offerings that was placed in the central patio area.

features or in the central patios. An adult male and female were placed in a small tomb associated with one of the northern structures, while five adults were buried in the central patio area. Three adult males and two adult females were interred in the northern structure of the other complex. Many of the adult interments were reused or opened, perhaps for ritual reasons. In contrast, most of the children were positioned under house floors or in large jars placed in terrace walls, probably during construction or rebuilding of the walls. One or two complete ceramic vessels accompanied many burials, and the “richest” burial, an adult female, contained six complete vessels.

Most of the non-burial offerings consisted of a pair of ceramic vessels, similar to those recovered at Monte Albán from the same time period, with a larger vessel (often with tripod supports) placed upside down on top of a smaller, simpler vessel. Offerings were found in a variety of contexts, but most often in the central patio areas or under house floors. They appear to have been placed during building or rebuilding episodes and may have been part of dedication ceremonies. We have yet to find any artifacts inside the offerings, although we suspect they may have held perishable materials. The

soils recovered from inside the vessels and burials are currently being analyzed.

We intensively sampled deposits from the two large ovens to determine if maguey residues are, in fact, present. Although there are structural and size differences between the two, both bear striking similarity to maguey ovens used today in Matatlán. The remaining fire installations were primarily small hearths, probably used to prepare food, situated outside the domestic structures or rooms.

Although we are still in the early stages of our study, we are excited by our findings on such issues as residential construction, household economies, ritual activities and the spatial and political organization of Oaxaca hilltop terrace communities. Given the current interest and encouragement that we have from Matatlán, the potential for productive long-term research at El Palmillo is extremely promising. With continued support from the Instituto Nacional de Antropología e Historia, the Centro Regional de Oaxaca, the local authorities of Santiago Matatlán, the National Science Foundation and The Field Museum, we look forward to additional field seasons and to gaining a fuller understanding of the nature of domestic life in ancient Oaxaca. **ITF**

Between Cultures: Children of Immigrants in America

Amy Granch, Editor

The Chicagoan Gina Grillo has been photographing swearing-in ceremonies, cultural celebrations and other events to capture the immigrant experience. But her interest in the subject dates back to childhood. The granddaughter of Italian immigrants, Grillo feels connected to the issues, both internal and external, that immigrants experience as they assimilate into a new life. Her exhibition, "Between Cultures: Children of Immigrants in America," features 25 poignant black and white images, along with children's essays and drawings, and runs through May 6, 2001. Below is an excerpt from an interview.



China Moon Festival

ITF: What drew you to the subject of immigrant children?

GG: All four of my grandparents came to the United States in the early 1900s from Italy, and most of them were gone before I was born. As with many immigrants of the time, they let details of the past go. I grew up with a longing to find out more, an urge to uncover the mysteries of where I came from and where my family is now.

The subject of my work originates from an early interest in understanding how the decision of one family's generation to immigrate affects those that come afterward. I felt that if I didn't delve into it, no one else would, and that could be a loss.

ITF: How did you get started?

I started where new immigrants start. I went to lines outside of the Immigration and Naturalization

Service, and then I heard Mayor Daley was hosting a swearing-in ceremony at Grant Park.

It was quite a learning experience. Until then, for example, I had never heard of the Oath of Citizenship—a moving, patriotic document. I thought going through this would help me appreciate my own citizenship in a different way. I met several families and was sometimes invited to their homes. I became interested in ethnic communities—how the façade of a neighborhood defines or reveals its level of diversity, and how fleeting that is. When my family came here, for example, Italians were one of the largest groups, and now they're not. That's historically significant and worth my undivided attention.

ITF: How did the project evolve?

GG: The INS invited me to shoot new immigrants arriving at O'Hare, which became the foundation for how I would piece together what I do now. I would wait for the planes, sit in a special section for new immigrants, talk with them, and when they were willing, photograph them right after arrival. That was remarkable...to be part of those first moments, that first hour.

One thing key to the exhibit is the time I've spent with children in inner city schools here and in Brooklyn. Big Shoulders, a Chicago Archdiocese program that gives scholarships to immigrant children, connected me directly to inner city schools with diverse populations. You can imagine how incredible that was. This project is not a self-portraiture; it's about community, and I couldn't have done it without one person after another helping me.

ITF: Did your motives change once you began networking and working with the schools?

GG: No. I saw that today's immigrants are no different than my own family. To understand the risks and courage, the longing and sacrifice, has always been personal. What my family went through 100 years ago hasn't changed much, and the greatest way to honor my grandparents is to honor the immigrants around me.

ITF: And photographing other families helps you feel connected to your roots?

GG: Yes. Through photography, I became more clearly rooted in how my grandparents influenced me. At a certain point I realized that the ability to take risks in the great way that immigrants do—to throw away everything that is familiar—is the secret to succeeding at anything. I want to know more—understand more—about that level of courage. I hope people who look at my images see something familiar, a common humanity. **ITF**

GINA J. GRILLO 14.97

YOUR GUIDE TO THE FIELD

A Pullout Calendar of Events for March and April

Inside: Exhibits

Family Programs

Kinetosaurs Opening Weekend Events!

Meet Kinetosaur Creator John Payne

Meet the man behind the dynamic dinosaur sculptures featured in "Kinetosaurs." Sculptor John Payne will demonstrate how these enormous sculptures move and discuss how he combined his passions for art and natural history to bring prehistoric creatures to life.

*Saturday and Sunday, March 24 and 25
10 a.m.–2 p.m.*

Free with Museum admission

Sue Hendrickson Booksigning

Meet Sue Hendrickson, discoverer of Sue the *T. rex*. Hendrickson is visiting The Field Museum to celebrate the opening of "Kinetosaurs" and to debut her new autobiography *Hunt for the Past: My Life As an Explorer*.

*Friday–Sunday, March 23–25,
11 a.m.–2 p.m.*

Free with basic admission

Look inside for other special programs throughout the run of the exhibition.

Hands-On Fun Brings Dinosaurs to Life

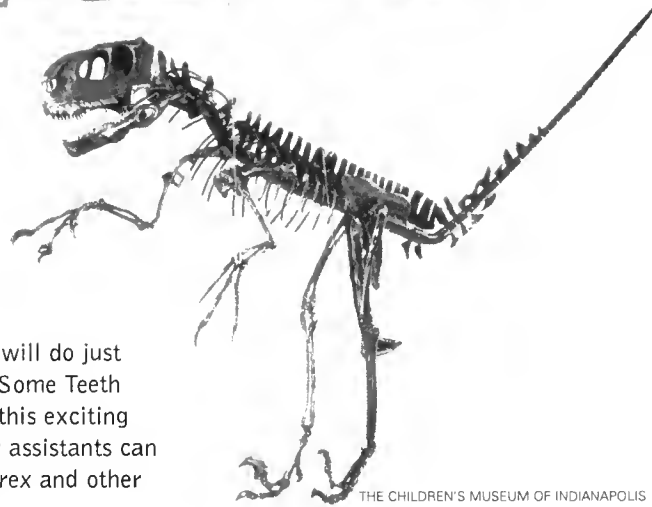
*"Kinetosaurs: Putting Some Teeth into Art and Science"
March 23–July 8, 2001*

KINETOSAURS

What do kids really want when they gaze at dinosaur fossils?

They want those prehistoric bones to come to life!

The living, breathing, roaring dinosaurs of your imagination will do just that at "Kinetosaurs: Putting Some Teeth into Art and Science." Inside this exciting exhibition, visitors and gallery assistants can set life-size sculptures of a *T. rex* and other dinosaur skeletons into motion.



The Kinetosaurs are activated through an ingenious system of wires, pulleys, rings and levers. And they are surrounded by interactive displays, computer simulations and hands-on learning stations where visitors can gain dino-insights into anatomy, art, engineering and life sciences.

Sculptor John Payne, who designed the Kinetosaurs to closely resemble real dinosaur skeletons, created the sculptures out of galvanized steel and discarded industrial parts. Payne first became interested in dinosaurs a decade ago when he brought his children to The Field Museum. Through reading and the Internet, Payne taught himself about dinosaur anatomy. Then he combined his passions for art and science to create the Kinetosaur sculptures.

Because building dinosaurs from steel is different than building them from bones and tendons, the Kinetosaurs can't mimic exactly how dinosaurs moved. But seeing the Kinetosaurs graze, hunt and defend themselves sparks the imagination of kids and adults alike.

After seeing "Kinetosaurs," you'll never look at fossilized dinosaur bones in the same way again.

"Kinetosaurs" created by The Children's Museum of Indianapolis.
Sculptures by John Payne of Payne Studios, Asheville, NC, 1998, 1999.

The **Field**
Museum

Call 312.665.7400 for information, tickets or to register for programs (unless otherwise specified).



©THE CHILDREN'S MUSEUM OF INDIANAPOLIS

Kinetosaurs

Dance-Like-a-Dinosaur Family Workshop

Green Light Performing Company

Run, plod and jump like a dinosaur in this interactive performance. Dance the role of a T. rex, Triceratops or Stegosaurus and discover how bones can tell scientists about these ancient creatures.

Saturdays, March 24–July 7, 1 p.m.

For adults and children ages 3–7.

\$2

Build-a-Dino Family Workshop

Create your own T. rex, Triceratops or other dinosaur marionette out of fun foam. Learn how dinosaurs with differently shaped bodies might have moved.

Sundays, March 25–July 8, 1 p.m.

For adults and children ages 6–10.

\$8; members \$6

Dinos Under the Big Top Family Activities

Join us in the exhibition "Kinetosaurs" for a carnival of interactive dinosaur activities. Apply your dino-insights to intriguing questions about anatomy, art and life sciences.

Saturdays and Sundays, March 24–July 8

10 a.m.–1 p.m.

Free with admission to "Kinetosaurs."

Kremlin Gold Lecture Series

Last two events!

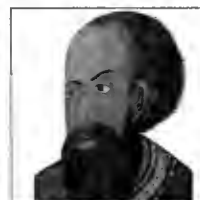
Great Figures in Russian History

Dr. James Cracraft, Professor of History and University Scholar, University of Illinois at Chicago

Find out more about Ivan the Terrible, Peter the Great, Catherine the Great, Nicholas II and other major figures in Russian history whose stories are linked to objects in the exhibition "Kremlin Gold: 1000 Years of Russian Gems and Jewels." Dr. Cracraft is an internationally recognized authority and author of seven books in this field.

Saturday, March 3, 2 p.m.

\$12; students \$10; members \$8



The Face of Russia: Anguish, Aspiration and Achievement in Russian Culture

Dr. James H. Billington, Scholar of Russian Culture and the Librarian of Congress

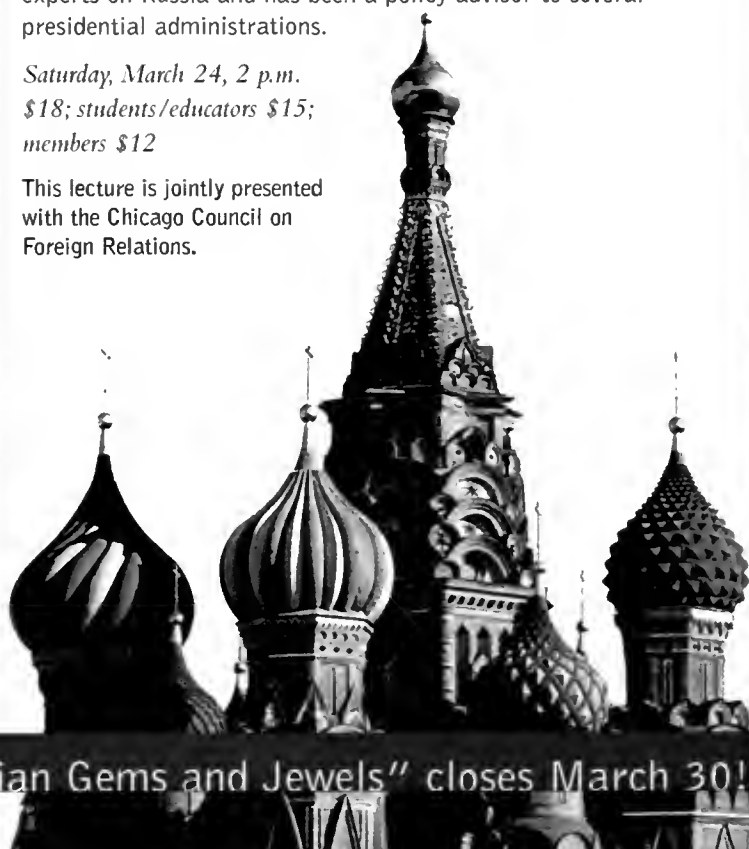
Explore how Russia's rich tradition of art, spirituality and culture throws light on the country's historical development and its current political prospects. Author of the book *The Face of Russia*, Dr. Billington is one of the nation's leading experts on Russia and has been a policy advisor to several presidential administrations.

Saturday, March 24, 2 p.m.

\$18; students/educators \$15;

members \$12

This lecture is jointly presented with the Chicago Council on Foreign Relations.



"Kremlin Gold: 1000 Years of Russian Gems and Jewels" closes March 30!

It's Wild in Chicago Festival 2001

Find out how you can help conserve and restore natural habitats at The Field Museum's four day environmental festival.

Free with Museum admission.

Saturday and Sunday, April 7-8, 11 a.m.-4 p.m.

Monday and Tuesday, April 9-10, 10 a.m.-1 p.m.

Festival highlights

Discover dozens of environmental organizations brought together by the **Chicago Wilderness** coalition.

Talk with **Field Museum** scientists about their research and careers.

Enjoy interactive performances where you'll meet **Hody Coyote**, a friendly puppet, or see **Insect Theater**, presented by the Illinois Natural History Survey.

Hands-on fun at our **Habitat Learning Stations**.



THE FIELD MUSEUM/GN8943C.29

New Discoveries

Life in the Treetops: The Ups and Downs

Hear the adventures of Dr. Margaret Lowman, a scientist and acclaimed author who has dangled 10 stories above the ground to study life in the rainforest canopy.

Saturday, April 7, 2 p.m.

\$12; students/educators \$10; members \$8

This lecture is presented jointly by The Field Museum and Earthwatch.

Voices from the Field

Earth on Edge: Reclaiming Urban Ecosystems

Jonathan Lash, President, World Resources Institute

John Rodgner, President, Chicago Wilderness

Leaders from around the globe are looking to Chicago for solutions to one of our most pressing environmental problems. Find out why the World Resources Institute, a think tank and key advisor to the United Nations on environmental trends, is recognizing the Chicago Wilderness coalition as a model for making urban metropolises more environmentally sound. You'll also preview footage from an upcoming Bill Moyers documentary on the environment.

Saturday, April 7, 4:30 p.m.

Cost is \$18; students/educators \$15; members \$12

This presentation is brought to you jointly by The Field Museum and the World Resources Institute.



THE FIELD MUSEUM/GN 8874B.43C

See inside for literary readings and family fun.

Dancing with Dinosaurs: The Story of Sue

Teens Together Ensemble

Learn about the evolution of dinosaurs and the science of paleontology through dance and song in this original musical by Teens Together Ensemble. Performances start at the "Life Over Time" exhibition and travel through the exhibition halls.

*Saturdays, through May 5, 1 p.m.
Free with Museum admission!*



Lectures

Uncovering the Mysteries of the Olmec

*David Grove, University of Illinois
Ann Cyphers, Universidad Nacional Autonoma de Mexico
Gary Feinman and Joshua Borstein, The Field Museum,
Anthropology Department*

Learn more about the colossal human heads that the Olmec culture carved from volcanic rock more than 3,000 years ago. Some are more than 7 feet tall and weigh more than 4 tons! Then check out the full-scale replica of an Olmec head, a gift to the City of Chicago from the Mexican state of Veracruz, which stands near The Field Museum's north entrance.

*Saturday, March 10, 9:30 a.m.–1 p.m.
\$12; members \$10; students/educators \$5*



Adult Courses

Botanical Painting and Illustration

*Marlene Hill-Donnelly, Scientific Illustrator,
The Field Museum*

Learn to draw and paint plants with both scientific accuracy and artistic style. We will study the elements of structure, light and color theory that bring an illustration to life. All experience levels are welcome.

*Tuesdays, March 20–May 8,
6–8:30 p.m.
\$115; members \$98*



MARLENE HILL-DONNELLY

Egyptian History: Late Period, The Saite Period—The Persian Period

Frank Yurco, Egyptologist

Discover what life was like in ancient Egypt from about 700–332 B.C., a period during which foreign rule devastated Egyptian culture.

*Wednesdays, April 18–May 23
(6 sessions), 6:30–8:30 p.m.
\$85; members \$72*

Below is a calendar of the temporary exhibitions you will have an opportunity to visit in 2001. Some dates may change. Remember to call or visit our website for specific information.

Kremlin Gold: 1000 Years of Russian Gems and Jewels
Through March 30

Kachinas: Gifts from the Spirit Messengers
Through July 22

Between Cultures: Children of Immigrants in America
January 5 through May 6

Family Fieldtrips

Fossil Hunt at Mazon Creek

Dan Dolak, Instructor, Columbia College

Do you like to hunt fossils? Come with us to Mazon Creek where geology specialist David Dolak will reveal special techniques for collecting fossils. You'll discover what northern Illinois looked like 300 million years ago. If you're lucky, you might find a prehistoric jellyfish, shrimp or plant.

Saturday, March 24, 8 a.m.–3 p.m.

\$32; members \$27



Family Workshop

Connecting to Conservation

Sara Fretzin, Environmental Conservation Programs, The Field Museum

You can make a difference! Go behind the scenes to meet Museum scientists and learn about the importance of biodiversity in your everyday life. Discover fun, exciting ways for parents and children to become conservationists in their own homes and communities.

Friday, April 27, 6–8 p.m.

Adults with children grades 1 and up.

\$15; members \$12



Make Your Mark

Cyd Engel, Special Projects Manager, Milwaukee Art Museum

Explore the Museum for inspiration and then return to the studio to design your own personal mark, which may even be made into a stamp. No prior artistic or drawing experience necessary. Sense of adventure required.

Saturday, March 31 and Sunday, April 1 (2 sessions),

10 a.m.–3 p.m.

\$72; members \$64

Literary Reading

An Evening with W.S. Merwin

Pulitzer Prize winner W.S. Merwin, whose work possesses an intimate feeling for landscape and language, will read poetry on environmental topics. Merwin's career spans five decades and he is currently a Poetry Consultant to the Library of Congress.

Tuesday, April 24, 6:30 p.m.

\$15; students/educators \$12; members \$10

This program is presented in a unique collaboration with the Poetry Society of America, The Poetry Center of Chicago and The Guild Complex.



MATTHEW SCHWART

Adult Fieldtrips

Spring Birdwatching: Bald Eagles

Alan Anderson, Naturalist

Journey to Savanna, Ill., to view the feeding and roosting habits of our national symbol. In early spring, more bald eagles can be seen along the Mississippi River in Illinois than anywhere south of Alaska.

Saturday, March 10, 6 a.m.–6 p.m.

\$60; members \$50

Fossil Hunt at Mazon Creek

Adults can enjoy fossil hunting too! See detailed description under Family Programs.

Saturday, April 7,

8 a.m.–3 p.m.

\$48; members \$41



THE FIELD MUSEUM/CS468150

Kinetosaurs: Putting Some Teeth into Art and Science

March 23 through July 8

Wrapped in Pride: Ghanaian Kente and African American Identity

April 13 through July 15

In Her Hands: Craftswomen Changing the World

May 18 through October 28



THE FIELD MUSEUM/GN8377 26C



THE FIELD MUSEUM/GN88712 19C



Naturalist Certification Program

The Field Museum, The Morton Arboretum and the Chicago Botanic Garden are offering an integrated program for both beginners and more advanced naturalists. No prior course work is required.

Living the Land Ethic: The Relevance of Leopold's Vision

Jim Ballowe, Distinguished Professor Emeritus, Bradley University

Aldo Leopold (1887–1948) was an internationally respected conservationist and a pioneer in the development of a "land ethic." Learn how his ideas affect contemporary thinking and explore your own environmental ethic.

*Sundays, March 4-25, 10 a.m.–1 p.m.
\$125; members \$105*

Illinois and Michigan Canal Heritage Tour

Irving Cutler, Professor Emeritus, Chicago State University

Discover the historic sites, architecture, ethnic enclaves and recreational trails along the I&M Canal, which brought Chicago's early growth. We'll stop at Lemont, Lockport and Joliet for lunch, walking and browsing.

*Saturday, April 21, 9 a.m.–5 p.m.
\$62; members \$52*

Living Colors: A Butterfly Garden
May 25 through September 3

**Julie Taymor:
Playing with Fire**
June 14 through November 4

Cheyenne
Opens August 10

The Two of Us

Connie Sulkin, Early Childhood Specialist

Young children and their adult companions are invited to a six-week exploration of The Field Museum. Each week we'll travel the Museum's exhibition halls and enjoy stories, songs, hands-on activities, an art project and a snack.

For adults and children ages 3–5

Tuesdays, April 17–May 22

10–11:30 a.m. and 1:30–3 p.m. (Choose one time.)

\$70 per child; \$60 per member child. For each child, one adult attends at no charge.

This program is sponsored by the Siragusa Foundation Early Childhood Initiative.

Cultural Life

Chicago's Global Communities

Chicago Historical Society, April 5

Amber and Its Place in Lithuanian Culture and Art

Balzekas Museum of Lithuanian Culture, April 25

Ukrainian Immigration to Chicago

Ukrainian National Museum, March 10

Purim Celebration

Spertus Museum, March 29

Tickets to all events are \$17; \$15 for members; free for children up to 11 years. To register, call 312.665.7474.

Animal Tracking

Christina Bentz, Environmental and Conservation Programs, The Field Museum

Peek into the secret lives of animals as you read clues about where the animals went, what they did and why.

Wednesdays, March 21 and April 11, 7–8:30 p.m.

Saturday, March 24, 9 a.m.–noon

Saturday, March 31, 6:30–9:30 p.m.

\$130; members \$110



DICK TODD

Field Ecology: Spring

Liane Cochran-Stafira, Department of Biology, St. Xavier University

We'll study how succession has influenced both our physical environment and ecological views. Be prepared to be outdoors most of the time.

Wednesdays, April 25–May 9, 7–8:30 p.m.

Sundays, April 29–May 13, 9–11:30 a.m.

\$130; members \$110

Coursework completed at any campus will earn credit toward the Morton Arboretum Naturalist Certificate.

For NCP courses at The Morton Arboretum, call 630.719.2468.

For NCP courses at the Chicago Botanic Garden, call 847.835.8261.

Local Flora 1: Spring

Edna Davion, Department of Botany, The Field Museum

The landscape comes alive when you can identify the names and characteristics of the plants found in local forests, prairies and wetlands.

Tuesdays, April 17–May 15, 7–9 p.m.

Saturdays, April 21–May 19, 9 a.m.–noon

\$150; members \$120



JIM NACHEL

**Sigmund Freud:
Conflict and Culture**

October 3, 2001 through
January 6, 2002

**Cleopatra of Egypt:
From History to Myth**

October 20, 2001 through
March 3, 2002

Exhibition Tours—Free with Museum Admission

Inside Ancient Egypt

Unlock the secrets of ancient Egyptian mummies. Learn about life and after-life in this great African civilization.

*Every weekday!
1 p.m.*



THE FIELD MUSEUM

Northwest Coast Indians and Eskimos

Discover a spectacular array of artifacts depicting two very different North American neighboring environments and cultures.

*Every weekday!
Monday, 1:30 p.m.
Tuesday–Friday, 11:30 a.m.
and 1:30 p.m.*



THE FIELD MUSEUM

Daily Highlight Tours

Visit the exhibitions that make this Museum one of the world's finest. Hear the stories behind some of these fascinating objects from nature and human culture.

*Daily!
Monday–Friday, 11 a.m. and 2 p.m.
Saturday–Sunday, 11 a.m. and 1 p.m.*

The Field Museum is open daily, 9 a.m.–5 p.m. Closed Christmas and New Year's Day.

Visit us as www.fieldmuseum.org.

Hands-on Activities and More

Interpretive Station Activities

Every weekend you'll find a selection of hands-on activities throughout the Museum. You may meet a soil scientist at work, see your name in Egyptian hieroglyphs or dissect an owl pellet.

Every Saturday and Sunday!

Pawnee Earth Lodge

Field Museum docents help bring history to life in this full-size replica of a traditional Pawnee lodge.

*Daily!
Saturdays and Sundays, 10 a.m.–4:30 p.m.
Weekdays at 1 p.m.*

Story Time: Facts, Fables and Fiction

Listen to a story, sing songs and make an art project to take home—all in just 20 minutes! One adult for every three children, please.

*Every Saturday and Sunday! 1 p.m.
For adults and young children
Meet at the "Living Together" exhibition.*

Sponsored by the Siragusa Foundation
Early Childhood Initiative.



THE FIELD MUSEUM/GN90006C 19

Scientists at The Field

Visit with Field Museum scientists to learn about their exciting research. You'll get to see rarely displayed specimens from the Museum's collections.

*Every second Saturday of the month
March 10 and April 14, 11 a.m.–2 p.m.*

Artists at The Field

Bring your own materials and get tips from professional artists as they create scientific illustrations and other art works inspired by our exhibitions. Stools will be available.

*Every third Saturday of the month
March 17 and April 21, noon–3 p.m.*

Exclusive Members' Viewings for "Kinetosaurs"

Hands-on fun brings dinosaurs to life in "Kinetosaurs: Putting Some Teeth into Art and Science." Set a *T. rex* and other life-sized dinosaur sculptures into motion and learn how these enormous creatures may have run, roared and fought millions of years ago.

Member viewing dates

Wednesday, March 21	9 a.m.–5 p.m.
Thursday, March 22	5–10 p.m.
Sunday, March 25	5–10 p.m.
Sunday, April 1	5–10 p.m.

Reservations

Reservations are required to receive timed entry tickets to this exhibition. Please do not request preview tickets for non-member guests—children or adults. RSVP by March 12 via mail or fax (312.665.7701) to receive your tickets by mail. No phone reservations will be accepted. Reservations received after this date will be held in will call, and a membership services representative will call you with your entry time.

Member preview tickets are limited, and time slots are available on a first-come, first-served basis. If you cannot attend the preview, and wish to view the exhibition another day or for a second time, a limited number of free passes are available.

How to get free member passes for "Kinetosaurs" on another date

Members are eligible to receive up to four free passes to special exhibitions at the Field in addition to your tickets for members-only viewings. Family members can receive up to four passes and senior, student, individual and national affiliate members can receive up to two passes by calling Ticketmaster at 312.902.1500. (A service charge and transaction fee will be assessed.) Members may also obtain passes at the membership services desk for future dates or same-day viewing for no additional service charge. Viewing dates and times are available on a first-come, first-served basis. For more information, call the membership office at 312.665.7700.

Parking will be available in the Soldier Field parking lot for \$7.50 per vehicle. Corner Bakery will be open until 8 p.m.



THE CHILDREN'S MUSEUM OF INDIANAPOLIS

Triceratops. Kinetosaurs created by The Children's Museum of Indianapolis. Sculptures by John Payne of Payne Studios, Asheville, NC, 1998, 1999.

E-Fieldtrips Bring Millions to The Field Museum

Cheryl Bardoe, Staff Writer

Imagine taking a behind-the-scenes tour of The Field Museum led by several top scientists. Picture yourself working right alongside them to investigate cutting-edge scientific theories. Or envision traveling with these scientists into the field to gather insect specimens, conduct ethnographic research or retrieve fossilized dinosaur bones from the ground.

Each year The Field Museum's electronic fieldtrips bring these opportunities to millions of students, teachers and families nationwide.

"With e-fieldtrips, we can bring our scientists right into the classroom or home," says Jennifer Eagleton, manager of educational media. "E-fieldtrips allow students to explore the same questions that our scientists study every day, but on a more accessible level. We're giving kids the resources to think through scientific questions for themselves, with our scientists as virtual mentors."

E-fieldtrips feature two major components. First, Field Museum scientists host a broadcast that is

delivered by webcast, satellite, select PBS and educational stations, distance learning networks and VHS tapes. On Dec. 13, for example, an estimated 8.3 million viewers in Canada and 28 U.S. states had the opportunity to tune into *The Sue Files*. During the broadcast, viewers met scientists from the Museum's geology and zoology departments, traveled to South Dakota to see Sue the *T. rex* being excavated and followed several students through hands-on activities to determine how Sue may have moved and her relationship to other species.

Students and teachers also can log onto the Museum's website to participate in an interactive, on-line curriculum. More than 14,800 Illinois students have already begun working on The Sue Files curriculum, in which students determine whether Sue the *T. rex* was the culprit in the disappearance of Field Museum scientist Dr. I. M. Prey. After using the scientific method to review eyewitness testimony and gather data about Sue, students write a letter to city officials, hold a press conference or draft a newspaper article summarizing their findings.

The Field Museum has been at the forefront of educational technology ever since 1996, when we pioneered one of the nation's first electronic fieldtrip programs. "With our world-famous collections, exhibitions and ongoing scientific research, the Field is an invaluable educational resource," Eagleton said. "This technology is bringing the Museum's resources to more people than ever."

The Field Museum's next e-fieldtrip will air in April 2001. Living Heritage: Critical Conservation will focus on the importance of biodiversity in South America, Africa and Swallow Cliff Woods, Ill. To learn more, check the educational technology section on our website at www.fieldmuseum.org/education.

From a press release created by students at AlWood Middle School in Woodhull, Ill., as part of The Sue Files curriculum.

"Several eyewitnesses believe the creature that committed the crime has a green body with bright yellow stripes and some feathers. They also think it was as large as an elephant. From Sue's fossil remains we cannot tell what color she was or if she had feathers, but we can tell that she was 13 feet tall and 42 feet long. Much larger than any elephant."



DIANE ALEXANDER WHITE

A&E's Investigative Reports Features Cofan Conservation Efforts

On Thursday, April 26, Bill Kurtis will preview his latest A&E *Investigative Reports* at The Women's Board's annual outreach lunch, Guardians of the Rainforest. His lecture and film, *The Cofan Peoples of Ecuador*, will document the work of Field Museum scientists in Ecuador alongside the indigenous Cofan, original inhabitants of the rainforest.



Cofan members at Vermejo, a small village in the Ecuadorian foothills.

The afternoon will include Randall Borman, son of missionary parents, who remained in Ecuador and became a Cofan member. (Borman received the Parker/Gentry Award in 1998 for his conservation work with the Cofan.) Setting examples for all to follow, Borman and the Cofan are experts in ecology and conservation, with projects that include recovering endangered turtle populations, establishing ecotourism ventures and producing colorful botanical field guides. Local students and teachers participating in our satellite Field Trips program will be our guests to learn first-hand from scientists and members of the Cofan about the meaningful impact of conserving the world's natural resources.

Please join us in honoring these Guardians of the Rainforest. McDonald's sponsors the lunch, with generous support from Stephen Freidheim. All proceeds benefit the Museum's Cofan conservation and cultural projects and Field Trips. The lecture begins at 11 a.m., and lunch follows. Tickets are \$80. For tickets or information, call The Women's Board office at 312.665.7135.

Friends of the Library Unveils Digital Imaging Program

Birds and beasts will fill the corridors on the evening of May 1, spilling from the third-floor reading room as the Friends of The Field Museum Library celebrates its 10th anniversary. The creatures are actually in the form of fine art prints and high quality T-shirts, reproducing some of the most beautiful original works held in the Mary W. Runnells Rare Book Room.

Albrecht Durer's rhinoceros, Edward Lear's parrots and John James Audubon's birds and quadrupeds are among many illustrations that have been reproduced through an image-licensing program sponsored by the Friends of the Library.

Royalties from the program are building the Library's endowment, helping to secure the future of this great scholarly resource. By special arrangement with the

licensees, all purchases during the event will generate at least double the usual royalty for the endowment.

While the corridors adjacent to the Library will become an art gallery for the evening, the reading room will become a digital imaging workshop demonstrating the art and technology of digital image capture, retouch and print production. The staff of Black Box Collotype of Chicago will perform and explain high-resolution image capture and Photoshop manipulation of digital image files for production of fine art facsimiles. We will also display and discuss the proofing process that leads to a finished print.

Admission is free for Friends and their guests and \$25 for non-members. All are

welcome to attend; reservations are limited. For reservations or information about joining the Friends of the Library, call Megan Sweeney at 312.665.7136 or email msweeney@fnnh.org.



From John James Audubon's *The Birds of America* (London, 1827-1838). Plate LXI, "Great Horned Owl."

The Field on Film

Mark Alvey, Administrative Coordinator, Academic Affairs

If there were an Academy Award category for "Best Performance by a Museum," The Field Museum would be a shoe-in. From the comic to the dramatic to the horrific, more than a dozen feature films and television series have used the Field's majestic halls and neoclassical facades as recognizable movie shorthand for "museum." The most familiar example may be *The Relic*, a 1996 entry about a brain-sucking monster on the loose in a Chicago natural history museum, but the Field on film stretches back to the days before movies "talked."



Hollywood and foreign studios were shooting The Field Museum at least as early as the 1920s—as a newsreel subject. Paramount, Fox-Movietone, Pathé and other major companies shot dozens of newsreel segments at the Field in the '20s and '30s, with subjects ranging from the unveiling of a newly acquired turquoise, to a visit from the Prince of Wales, to cleaning the elephants in Stanley Field Hall. It is difficult to know how many of these shorts survived the ravages of time—and nitrate film—but a few still exist in film archives and provide a fascinating glimpse of the Field during this era.

Fast-forward some 50 years to find the Field in a major motion picture—the 1973 big-screen adaptation of Desmond Morris' pop-anthropology bestseller, *The Naked Ape*. Although the film is no longer in distribution, long-time Museum staff members recall that a human evolution exhibit was created in the main hall for a scene featuring Victoria Principal. The filmmakers reportedly offered the ersatz exhibit to the Museum when the production was completed, but then Field Museum President Leland Webber declined.

The Museum's next big-screen part was a more mainstream effort with bigger stars and is better remembered today—*Damien: The Omen II*. The 1978 sequel to *The Omen* finds the young Antichrist in the care of his uncle, Chicago indus-

trialist Richard Thorn (played by William Holden), who also chairs the Thorn Museum (played by the Field). The Thorn Museum is slated to acquire a trove of biblical-era artifacts that hold clues to Damien's true nature, and thus figures prominently in the story. Besides establishing shots of the south entrance, the film captures Stanley Field Hall and the Egypt gallery of that period (now the Siragusa Center). The movie ends with Damien standing on the Museum's north steps with an imperious smile as he ponders his destiny (and perhaps two more *Omen* sequels).

Damien was on the forefront of a boom in Chicago-based moviemaking, driven by a trend toward "runaway production," when producers fled Los Angeles in search of visual variety, reduced red tape and lower costs. The creation of the Illinois Film Office in 1975, and the arrival of Mayor Jane Byrne's film-friendly administration the following year, led to the rapid entrenchment of Chicago as a vibrant film location. Today, stars' trailers and movie catering trucks have become common sights on Chicago streets—and at The Field Museum.

The Museum's next appearance was in a romantic comedy called *Continental Divide* (1981), concerning the unlikely romance of a Mike Royko-like *Chicago Sun-Times* columnist (John Belushi) and an earthy ornithologist (Blair Brown). After a brief separation their passion is rekindled when the scientist returns to give a lecture at "The Natural History Museum." Before the final embrace, Belushi's rumpled news hound makes several indecisive passes up and down the Field's north steps as he works up his courage to go in.

The Field played a small part in the 1986 pilot to the series *Crime Story*, when two professional burglars admire "The Lakeshore Museum" from the steps of Shedd Aquarium as they discuss plans to heist the "Hapsburg jewels." There were larger supporting roles in two 1988 films. In *Vice Versa*, an ancient artifact causes a father (Judge Reinhold) and his teenage son (Fred Savage) to switch bodies. Desperate to reverse the spell, we see the pair walking through Stanley Field Hall on their way to consult an archeologist about the object's origins. In *She's Having a Baby*, Kevin Bacon plays a young husband beset by the anxieties of a new marriage and impending fatherhood. The "Museum of Natural History"—Stanley Field Hall again—figures in four scenes, notably the one in which his wife (Elizabeth McGovern) reveals that she is expecting.

Not to be typecast, our handsome neoclassical edifice won non-museum parts in two 1989 releases.

In *The Package*, a political thriller starring Gene Hackman, the Museum stands in for a D.C. military office building and reappears as itself in an aerial shot when the action shifts to Chicago near the film's climax. The Field also co-stars with Jessica Lange in *The Music Box* as a Chicago courthouse, with both the north exterior and grand staircase in Stanley Field Hall setting the scene for the film's war-crime trial. It was back to work as a museum in 1990 in *The Kid Who Loved Christmas*, a sentimental made-for-TV movie, followed by another appearance as a government-type structure in the 1993 ABC series *Missing Persons*.

The Field is central to the plot of *The Relic* (1996), a movie about a monster that gets loose after being shipped back to Chicago with a load of archeological artifacts. Only a few scenes were shot at the Field, including the north entrance, Stanley Field Hall and the west balcony, but the producers' efforts at re-creating "back-of-the-house" labs and a two-tiered zoology exhibit convinced many viewers that the whole movie was shot here. The Field also appears in the 1996 thriller *Chain Reaction*, but is portrayed in a vaguely Smithsonian fashion as a Washington, D.C., science museum, combined via wildly discontinuous editing with parts of the Museum of Science and Industry.

The Field remained busy in the 1990s, appearing in television's *Early Edition* and at least two episodes of the NBC hit *ER*. Its most recent feature film stint was a 2000 remake of a 1993 French fantasy-comedy *Les Visiteurs*, called *The Visitors*, which has only been released in the United Kingdom. And parts of *The Muhammad Ali Story* with Will Smith will be filmed here in 2001.

Ron Ver Kuilen, managing director of the Illinois Film Office, reports, "After the El, the intersection of Milwaukee, North and Damen and Wrigley Field, The Field Museum has been our most popular filming location." At last count, that's 11 features, two TV movies and five TV episodes, not including at least 30 newsreels and a 1954 TV commercial for Community Motors Pontiac. Their "thumbs up" quotient is mixed, and there is nary a Best Picture among them, but each one, from the newsreels to *The Relic*, contains an unintended, often unexpected pleasure for fans of The Field Museum. The "Best Performance by a Museum" category may be a stretch, but "Most Photogenic?" The Field is the winner, hands-down.

In Damien: The Omen II, one of the earliest features shot at The Field Museum, a terrible secret is gradually being revealed to Richard and Ann Thorn (William Holden and Lee Grant).



© 1978, 20TH CENTURY-FOX

For information, call Field Museum Tours at 800.811.7244 or email fmtours@sover.net. Please note that rates, prices and itineraries are subject to change and that prices are per person, double occupancy.

An Insider's Tour of Santa Fe

April 29–May 4, 2001 (6 days)

This focused tour offers a splendid combination of archaeological sites, museums, cultural centers, artist and craftsmen's workshops, outstanding restaurants and one fine hotel. Highlights include the prehistoric ruins of Poshu-Ouinge and Sapawe, ancient Taos, historic Pecos, the San Felipe Pueblo's Green Corn Dance and Georgia O'Keefe's house.

Museum Leader: Anthropologist Jonathan Haas



INTERNATIONAL EXPEDITIONS

Egypt Revisited

Oct. 14–28, 2001 (15 days)

Explore spectacular archaeological sites and monuments not seen on your first trip. (First-time visitors should see Egyptian Odyssey below.) Highlights feature Abusir, Dashur, Maidum, Faiyum, Tanus, Abydos, Dendara, dawn at Abu Simbel and three nights cruising Lake Nasser, plus lesser-known sites in Cairo, Luxor and Aswan.

Museum Leader: Egyptologist Frank Yurco

The Geology and History of New Zealand

Nov. 3–21, 2001 (19 days)

New Zealand's natural and cultural diversity will astound you. On North Island visit Goat Island Marine Reserve, Tongariro National Park, the NZ Maori Arts and Crafts Institute, Tokomaru Bay, Gisborne and Wellington's Museum of New Zealand and Botanic Gardens. On South Island tour Christchurch's Canterbury Museum, Dunedin, Queenstown and Milford Sound.

Museum Leader: Anthropologist John Terrell and Geologist Scott Lidgard

Amazon by Riverboat

Dec. 1–9, 2001 (9 days)

Travel aboard a 14-cabin riverboat exploring the remote upper reaches of the Amazon River system. Experience the forest and wildlife of the Amazon jungle. Optional extension to Cuzco and Macchu Picchu.

Museum Leader: TBA

Mysteries of Earth by Private Jet

Dec. 30, 2001–Jan. 23, 2002 (25 days)

Travel aboard a private, first-class Boeing 757 on a once-in-a-lifetime journey to the world's most remote habitats: the vast flora and fauna of the Amazon; volcanic Canary Islands; great apes of Borneo; annual migration in Tanzania; wildlife of Nepal; rare species of the Galapagos; undersea life of the Great Barrier Reef; moai of Easter Island; tribal cultures of Papua New Guinea; the Seychelles; and Samoa.

Guest Leader: Renowned evolution expert Stephen Jay Gould

Egyptian Odyssey

Jan. 27–Feb. 3, 2002 (8 days)

Explore the amazing world of Egypt's ancient pharaohs by land and riverboat. Discover astounding archaeological sites, including the famed pyramids of Giza, the site of ancient Thebes, the three colossi of Ramses II and the Valley of Kings. Take a nostalgic Nile cruise aboard one of two vintage paddle wheelers, built at the turn of the century.

Leader: Egyptologist Frank Yurco

Co-sponsored with the Explorers Club, Mysteries of Earth encompasses four continents and is led by Stephen Jay Gould, well-known scientific writer and lecturer.



TCS EXPEDITIONS



IN THE FIELD

Field Museum

Alan

The Hidden Wilderness
of the Cordillera Azul

Living Colors:
A Butterfly Garden

Field Research Season Swells at the Museum



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Anthropology

Jonathan Haas—Peru to survey and map large preceramic sites in three valleys on the central coast.

Alaka Wali—Lake Calumet to continue social asset mapping research in conjunction with the conservation design work. Peru to assess working with the Shipibo on monitoring the environment. New York City to research gender roles, work and health among African-American women.

Antonio Curet—Tibes in Ponce, Puerto Rico, possibly one of the earliest chiefdoms in the Caribbean, to identify potential domestic areas using geophysical techniques.

Gary Feinman, Linda Nicholas and William Middleton—Oaxaca, Mexico, to excavate residential terraces at El Palmillo and look for changing patterns of domestic life and economic organization (ca. A.D. 200–800).

Botany

Greg Mueller—Costa Rica to co-coordinate an international workshop and collect fungi as part of the Costa Rican National Inventory.

Jun Wen—China, India and Vietnam to conduct field studies on the systematics of the medicinally important ginseng species and the biogeography of Asia.

On almost any given day, Field Museum scientists can be found combing through dense forests, wind-swept plains or snowy mountain footpaths seeking clues to understand our planet's people and places. Here are just a few points on the global map some of our scientists will be visiting in the next few months:

Environmental and Conservation Programs

Debby Moskovits—Peru to follow up on a rapid biological inventory completed last fall. Bolivia to begin work on a primate research center and transforming logging concessions into conservation concessions.

Robin Foster—Ecuador to assess the Andean foothills, a potential site for future rapid biological inventories and training in inventory methods.

Douglas Stotz—Calumet to continue a conservation study on bird populations and distribution in areas targeted for ecological restoration.

Geology

Olivier Rieppel—China to study recently discovered middle Triassic marine reptiles.

John Flynn—Chile to prospect for new fossil mammal localities in the Andes Mountains.

Jenny McElwain—Sierra Nevada to collect fossil plants from the Middle Eocene Chalk Bluffs flora and test a new method of estimating paleo-elevation. Tibet to collect high-altitude fossil plants in investigating the uplift history of the Tibetan plateau.

Lance Grande—Wyoming to excavate in the fossil beds of the Green River Formation, one of the most productive freshwater fossil locations in the world.

Peter Wagner—Nevada, Utah and California to collect gastropods from the Ordovician and Devonian periods.

Zoology

Barry Chernoff—Guyana to collect fishes and photograph specimens for his revision of the characid genus *Bryconops*.

Harold Voris—Thailand to study snake ecology in national parks.

John Bates—Democratic Republic of Congo to help two research stations document biodiversity.

Petra Sierwald and Jason Bond—Republic of South Africa to collect arthropods, including spiders and millipedes, for research here and at other institutions.

Janet Voight—Juan de Fuca Ridge, Pacific Ocean, to build biological collections in cooperation with a geophysics cruise that is using a remotely operated vehicle.

Tom Gnoske—Bhutan, Himalayas, to conduct bird and small mammal faunal inventories and survey the distribution of tigers and their prey.

For more information on our scientists or their research, visit www.fieldmuseum.org. You may also meet some of them at Members' Nights on May 23, 24 or 25. See page 21 for more details on this anticipated opportunity.

John W. McCarter, Jr.

John W. McCarter, Jr.
President & CEO

What do you think about *In the Field*?

Continuing improvements, we have introduced two new changes in this issue. Membership News, historically placed around the middle of the magazine, has a permanent new home inside the back cover so you will always know where to go for the latest membership information. Also, we have replaced Ask A Scientist with Scientist's Pick on page 15. It's a striking large photo of an unusual artifact or specimen from the collections that our own scientists choose to highlight. It may be something you might not otherwise see and is tied to our goal of presenting science in an exciting, engaging, educational way. Please send comments or questions to Amy Cranch, publications manager, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496, or via email at acranch@fmnh.org.

INTHEFIELD INSIDE

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The Field Museum salutes the people of Chicago for their long-standing, generous support of the Museum through the Chicago Park District.

The **Field**
Museum

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A rapid biological inventory in Peru reveals at least 28 species of plants and animals new to science.

Left: This Bolitoglossa sp., apparently new, sets the highest-altitude record for a salamander in Peru.

6

New research concludes that ferns and horsetails are the closest living relatives to seed plants.

Left: The report made the cover of Nature magazine in February.

15

New column! See Scientist's Pick for a close-up view of a seal's distinctive teeth.

16

Repatriation is active at The Field Museum.

18

Celebrity-made masks will be auctioned off to benefit the Museum.

Left: Masks by Donna Blue Lachman (left) and Dirk Lohan (right).

Museum Campus Neighbors

Shedd Aquarium The Oceanarium turns 10 in 2001. Watch the beluga whales and Pacific white-sided dolphins in an all-new behavioral presentation, with lots of surprises. Throughout May, take part in an Oceanarium birthday party, and in June, go behind the scenes to see how the marine mammals are cared for. Check www.shedd Aquarium.org for specific dates and times, or call 312.939.2438.

Adler Planetarium Celebrate the eternal creativity of the human spirit that sought to measure, track and ultimately mechanize time in *Episodes from the Story of Time*, open April 11 to Sept. 3, 2001. Marvel at unique, seldom-seen artifacts, such as ancient astrolabes, complicated sundials, perplexing perpetual calendars and intricate clocks. For information, visit www.adlerplanetarium.org, or call 312.922.STAR.

Museum Campus Walking Tours Discover how Chicago's three natural science museums have been brought together in a contemporary version of Daniel Burnham's *Plan of Chicago*. Admire Chicago's architectural skyline against nature's shoreline. Meet in front of Shedd Aquarium at 11am on June 2, July 7 or Aug. 4. Tickets are \$5, or free for Chicago Architecture Foundation members. Visit www.architecture.org, or call 312.922.3432 for details.

The Hidden Wilderness of the Cordillera Azul

William S. Alverson and Debra K. Moskovits, Environmental and Conservation Programs

Rapid biological inventories, a critical focus of The Field Museum's Environmental and Conservation Programs, aim to catalyze immediate action for conservation in threatened regions of high biological value. The scientific teams focus primarily on groups of organisms that indicate habitat type and condition and can be surveyed quickly and accurately.

Our rapid inventories do not attempt to produce exhaustive lists of organisms. Rather, we use a time-effective, integrated approach to identify different biological communities and determine whether they are of outstanding quality and significance in a regional or global context.

In-country scientists are central to these teams. And after each inventory, long-term management of the natural communities and further research rely on initiatives from local scientists and conservationists.

When an inventory is completed, typically within one month, the team relays the survey information to local and international decision makers who can set priorities and guide policy and action in the host country.

The Shipibo call these craggy peaks of the upper Río Pisqui manashahuemana, or turtles, in allusion to a row of piled-up turtles.



©WS ALVERSON

Cordillera Azul—the “Blue Mountains” of Central Peru

The northern Cordillera Azul mountain region is huge, wild and breathtaking. The easternmost—and youngest—range of the Andes, the Cordillera Azul sprang up between the lowlands of the Ucayali River to the east and the hills and valleys above the Huallaga River, a major center of coca cultivation, to the north and west. Its dynamic geologic setting—with jagged mountain crests and ridges, landslides and sheer rock cliffs, broad lowland valleys and slopes, and high-altitude wetlands—was the target of the Museum’s three-week rapid biological inventory this past fall.

A striking, important aspect of the Cordillera Azul is its staggering diversity of habitat types, from the wide range of altitudes (200 to 2,400 meters), to the large variety of soil and rock types, to the extensive wetlands. There are few or no permanent residents within the highlands, and human use is generally low, even by the indigenous Shipibo community in the eastern lowlands.

Our leading partner in the inventory and subsequent conservation negotiations is the Asociación Peruana para la Conservación de la Naturaleza (APECO). In 1999, APECO spearheaded an initiative with the Red Ambiental Peruana, a private environmental coalition, and recommended establishing a new national park within the rugged highlands.

Our goal was to obtain quickly the biological information critical to empower and sustain these



© D. K. MOSKOVITS

national and regional conservation efforts. The Cordillera Azul still offers the rare opportunity to act *before* habitat fragmentation and degradation forever transform the landscape.

Speed is essential because transformation approaches swiftly. The nearly 10,000 sq. miles of contiguous foothill and lowland forests, once under partial federal protection, are now under threat from multinational logging interests, which have designated a huge expanse of ancient Amazonian forests as logging concessions. New roads being planned for extracting the timber will attract massive, disorderly colonization that will lead to damage much greater than the direct impact of selective logging, unless comprehensive and immediate measures for conservation can be put in place.

The good news is that while we were there, the Peruvian government declared the remaining acreage as a reserved zone, signifying at least temporary, continued protection from timber harvest and agriculture.

Rapid Inventory of the Proposed National Park

Charged with collecting and relaying information before public auction of the lowland logging concessions, we started planning the rapid inventory with APECO’s Lily Rodríguez and secured funding from the John D. and Catherine T. MacArthur Foundation. Our first big challenge was to reach our study site. Ringed by sheer rock escarpments, the heart of the northern Cordillera Azul is extremely difficult to access. The central section

Russian-made helicopters of the Peruvian National Police carried us to otherwise inaccessible areas within the Cordillera Azul.



© W. S. ALVERSON

“Most of the areas to the east, west and south were hilly and forested. But to the north was one of the most incredible views [I have] ever witnessed in [my] 40 years of Peruvian travel...” John P. O’Neill



© JOHN P. O'NEILL, ARTIST

The Scarlet-banded Barbet (Capito wallacei), a new, endemic species, is known only in tall cloud forests on a few ridge crests within the northern Cordillera Azul.

of this escarpment rises a vertical mile out of the lowlands, reminiscent of the front range of the Grand Tetons in Wyoming.

A wonderful chain of support took us from the Museum's external affairs office, to our federal relations representative in Washington, D.C., to the Peruvian National Police (PNP), each entity helping us gain access to the area. From the moment we landed in Lima, the PNP helped get the team and our unwieldy gear into the field. PNP helicopters also flew us in and out of our survey sites, giving us hours of superb close-up views of different habitats.

Once on the ground, the inventory team—with scientists from two Peruvian and two U.S. institutions—spread out along trails cut by our Peruvian and Shipibo guides. The vertical climbs to the crests challenged even the youngest and hardest among us. It was treacherous walking around in the spongy, unstable mats of superficial roots at the "top of the world." One false step and you sank to your hips, with your stomach quickly lodging in your throat. But as we became increasingly exhausted and sore, the views grew more stunning and the plant and animal life spectacular.

What can a group of scientists find in three weeks, covering three sites? An impressive amount, when the area is as rich and rugged as the Cordillera Azul.

We established several satellite camps across a range of elevations. During those 21 days, we surveyed vascular plants, fishes, reptiles and amphibians, birds and large mammals. For each organism group, we found specialized species with restricted ranges and habitats. Dozens of records of plants and animals are new for Peru. And at least 28 species—but likely many more—are new to science.

The botanists registered about 1,600 species of plants and estimated 4,000 to 6,000 for the region. More than 12 species are new to science, including a "bonsai" version of a giant tree at the ridgetops. The diversity of palms—an important food resource for maintaining high densities of several mammals and birds—is remarkable in the region. In less than one month, the team encountered 43 percent of the 105 palm species known from Peru.

The mammal team recorded 71 species of mammals, including a black squirrel that is possibly new to science. Noteworthy records include bush dogs, spectacled bears, 10 species of monkeys (with the woolly, spider and saki monkeys common and tame) and daily sightings of white-lipped peccaries, with more than 100 individuals per herd. The sightings include 13 endangered species.

Together with a field team from the Louisiana State University Museum of Natural Science, the ornithologists registered more than 500 species of birds, with one new species—the Scarlet-banded Barbet (*Capito wallacei*)—newly described from a single group of ridges in the northern Cordillera Azul. Three species are new records for Peru. The Cordillera Azul has sizeable populations of game birds, large parrots and macaws. Two poorly known and habitat-restricted species, the Royal Sunangel hummingbird (*Helangelus regalis*) and the Bar-winged Wood-Wren (*Henicorhina leucoptera*), are common in the stunted forests at the crests of mountains; the Cordillera Azul may be the previously unknown center of distribution for these species.

The herpetologists found 82 species of amphibians and reptiles, with eight possibly new species of frogs and one new species of salamander, only the fourth known from Peru. Brightly colored frogs—representing a rich assemblage of species from northern and central Peru, and from the highlands and lowlands—were a prominent feature at every elevation.

Finally, a sampling of fishes in the headwaters revealed a rich fauna with at least 22 new records for Peru, of which 10 are possibly new to science. The fish team found several new species in waterfall-studded, clear-water streams in the highlands. Some have extreme adaptations for climbing waterfalls: they cling with their strong sucker mouths to vertical and even overhanging rock. In the lowlands, the ichthyologists registered large numbers for species typically exploited for human consumption, indicating a healthy fish community.

The stark beauty of the region, the wealth of interesting species and the harshness of the terrain all contributed to the trip's intensity and a strong bond that developed among team members. Everyone endured logistical mishaps with good humor, including all the food ending up in one high camp while all the water ended up in another. Those who had to camp along steep slopes gracefully tolerated their sleeping fellow campers rolling into their tents at night.

Toward the end of the trip, tragedy struck. The PNP helicopter that had supported us throughout the expedition crashed, killing the copilot and severely injuring the pilot and flight engineers. Our hearts and healing wishes remain with the survivors and their families, and with the family of Livio Orozco Escobar, the copilot. Our continued efforts in the region will carry our deep gratitude and devotion to all who extended their kindness and dedication.

Conservation Opportunities

The rapid biological inventory team is recommending that the Peruvian government reclassify the reserved zone as a national park and extend its limits to follow the natural contours of the terrain. The approximately 5,000 sq. miles of proposed parkland would protect a unique set of biological communities that are among the most diverse of all existing conservation areas in Peru. Many of these communities are endangered or unprotected elsewhere, and are disappearing fast.

The sheer size and isolation of the proposed park will allow it to function as a genetic refuge for game animals and commercial tree species that may be exploited to local extinction elsewhere in Amazonia and the Andes. Appropriate land management and economic alternatives in the lowlands will engender protection of the entire, contiguous range of biological communities, from dwarf vegetation at the mountain crests to the tall rainforests along lowland rivers.

The 1,000 indigenous Shipibo who live in the expansive, still-intact lowlands east of the proposed park represent a promising potential for conservation. Shipibo guides worked closely with us on the rapid biological inventory and on a previous expedition led by APECO. Since the inventory, representatives of APECO and The Field Museum have been discussing options with the Shipibo to develop a conservation plan for the area where they traditionally live and hunt.



The Shipibo can play a major role in creating a balanced management plan for the area, including monitoring schemes to prevent excessive hunting, fishing and over-harvest of forest products. Shipibo residents are interested in developing ecotourism and other low-impact economic alternatives that are compatible with the long-term survival of their culture and the plants and animals of the northern Cordillera Azul.

Where are we now? The Field Museum and APECO have been working with Peruvian governmental and non-governmental entities since the fieldwork was completed and presented the rapid inventory results in late winter. One goal is to secure national park status for the highlands before the Peruvian government changes this summer. Feasible? Possibly. Many are working hard, in Peru and the United States, to maximize the chances of success.

Our second goal, backed by Peruvian and international organizations, is to convert the three concessions inhabited by the Shipibo people to *conservation* concessions rather than logging concessions. The moment of truth will come during the public auction this June of the 22 "logging" concessions that now cover 5,000 sq. miles of lowland forests east of the Cordillera Azul escarpment. Until then, and we hope long after, we will continue planning for conservation with the Shipibo. If these collaborative efforts are successful, the Cordillera Azul region may soon become one of the most treasured natural assets of Peru—and of the world. **ITF**

For the complete, multi-authored report of the Cordillera Azul expedition, or more information on rapid biological inventories, visit www.fimuh.org/rbi.

Our Shipibo guides take a short break after a long, steep climb to our highland camp.

Scientists Shake Up the "Family Tree" of Green Plants

Greg Borzo, Media Manager, Academic Affairs

Apparently, the lowly fern deserves more respect.

New research that appeared as the cover story of *Nature* on Feb. 1 concludes that ferns and horsetails are not—as currently believed—lower, transitional evolutionary grades between mosses and flowering plants. In fact, ferns and horsetails, together, are the closest living relatives to seed plants.

"Today's systematists are using genomic tools to rewrite the textbooks on animal and plant evolution," says James Rodman, program director of environmental biology at the National Science Foundation, which funded the research. "This research is the latest major rearrangement of the plant tree of life. It will encourage others to explore ferns as model organisms for basic ecological and physiological studies."

This research calls for rethinking the "family tree" of green plants. Also, it uncovers a research shortcoming. All main plant model organisms used for research (such as *Arabidopsis*, which recently became the first plant to have all its genes sequenced) are recently evolved flowering plants. This limitation could compromise scientific research. Models in the newly identified fern and horsetail lineage are needed to round out the study

of plant development and evolution. This could help scientists fight invasive species, engineer genetic traits, develop better crops and prospect the botanical world for medicines.

The new research uses morphological and DNA sequence data to show that horsetails and ferns make up one genetically related group, which evolved in parallel to the other major genetically related group made up of seed plants and including flowering plants.

"Our discovery that 99 percent of vascular plants fall into two major lineages with separate evolutionary histories dating back 400 million years will likely have a significant impact on several disciplines, including ecology, evolutionary biology and plant developmental genetics," says Kathleen Pryer, Ph.D., lead author of the paper and assistant curator in botany at The Field Museum. "Viewing these two genetically related groups as contemporaneous and ancient lineages will likely also have profound consequences on our understanding of how terrestrial ecosystems and landscapes evolved."

The work of Dr. Pryer and her colleagues builds on the Deep Green project, an unprecedented collaboration of researchers dedicated to uncovering the evolution of and interrelation of all green plants. In 1999, Deep Green reported at an international botanical conference that DNA analysis indicates that all green plants—from the tiniest single-celled algae to the grandest redwoods—descended from a common single-celled ancestor a billion years ago. Green plants, which include some 500,000 species, are among the best-documented groups in the tree of life. The new paper on ferns, horsetails and seed plants improves scientists' understanding of that group still further.

To learn more about related work, visit these website links:

- Phylogeny, character evolution and diversification of extant ferns: http://www.finnh.org/research_collections/botany/botany_sites/ferns/index.html
- The life history and fossil record of horsetails: <http://www.ucmp.berkeley.edu/plants/sphenophyta/sphenophyta.html>
- A plant phylogenetics project called Deep Green: <http://ucjeps.herb.berkeley.edu/bryolab/green-plantpage.html> **ITF**

Cyathea (tree fern), commonly called fiddlehead; young leaf, tightly curled in crozier; Costa Rica.



© A. MURRAY EVANS

YOURGUIDE TOTHEFIELD

A Pullout Calendar of Events for May and June

Inside: Exhibits Festivals Family Programs Adult Programs



New Exhibition— Living Colors: A Butterfly Garden

May 25–Sept. 3, 2001

Step into a lush, enchanting world of living color.

The Field Museum has created a captivating garden where hundreds of butterflies will flutter and swirl around you on the southeast terrace.

The garden is home to more than 35 species of butterflies and moths that are native to North America. All around you butterflies sun themselves, sip nectar from flowers and chase one another within inches of your head. Stand very still...and one may even land on your nose!

As you explore the garden, use our butterfly guides—available in English and Spanish—to see how many species you can identify. You can also watch as new butterflies emerge from their chrysalises (or moths from their cocoons) and expand their crumpled wings to take flight for the first time.

Visiting *Living Colors* is a wonderful way for both adults and children to celebrate the summer. Stroll leisurely through this delightful garden, learn about butterfly biology and conservation efforts and marvel at nature's fragile beauty.

Don't miss this magical sensory experience.

Living Colors: A Butterfly Garden is created by The Field Museum.

Hands-on Butterfly Fun

Learn about butterflies and the habitats they call home through hands-on activities that you'll find near the *Living Colors* exhibition and throughout the Museum.

Put together a butterfly puzzle and learn about the antenna, proboscis and other parts of a butterfly's body. Learn to identify the markings of local butterflies as you draw them with chalk on the sidewalk. Or gain insight into the art of scientific collection and discover how you can help maintain and restore wildlife habitats.

Wednesdays, Saturdays and Sundays

May 25–Sept. 3

FREE with Museum admission

The Field
Museum

Call 312.665.7400 for information, tickets and for programs (unless otherwise specified).

Don't Miss Sue's Birthday!

After 67 million years of being buried in the earth, Sue is celebrating her first year in her new home at The Field Museum. We'll celebrate throughout May with a variety of activities for all ages.

Family Programs

Sue-per Birthday Parties

Join us for a birthday breakfast complete with party hats, favors and a special Sue birthday cake at each table. Stay as long as you like after breakfast. You'll have the Museum practically to yourselves for a whole hour before we open to the public. If your child has a birthday in May, you can arrange to have your party here and celebrate right along with Sue!

For families with children ages 5–10

General admission: \$28 for adults and \$23 for children

Members: \$25 for adults and \$20 for children

Breakfasts are 7–9am every Saturday in May, with additional breakfasts on May 1 and May 17.

Check out more listings under Family Dino Fun inside!



Adult Programs

Scientific Symposium

Dinosaur enthusiasts may be interested in the A. Watson Armour Symposium on May 12, entitled *The Paleobiology and Phylogenetics of Large Theropods*. The day will feature technical presentations by top paleontologists. Check our website at www.fieldmuseum.org for details.

Feathered Dinosaurs and the Origin of Birds

Could dinosaurs be the genetic ancestors of birds? Dr. Philip J. Currie, whose work on feathered dinosaurs has been covered by *National Geographic* and PBS' *Nova* series, will explore the question that has revolutionized paleontology. Following the lecture, join prominent paleontologists from around the world for a lively roundtable discussion.

Sunday, May 13

Lecture at 1:30pm; Roundtable at 3pm

*Lecture or Roundtable only: \$12;
students/educators \$10; members \$8*

*Lecture and Roundtable: \$18;
students/educators \$15; members \$12*



Sue at The Field Museum is made possible by McDonald's Corporation. A major sponsor of Sue is Walt Disney World Resort. Additional support has been provided by the Illinois Department of Natural Resources/Illinois State Museum.



Citywide Puppet Festival Kicks Off at Field Museum

Festivities Highlight New Exhibition

Puppeteers will take over The Field Museum's lawn on Thursday, June 14, to kick off the City of Chicago's Puppetropolis Chicago festival.

Festivities are 6–9 pm, and are free.

Join us for all types of puppetry—marionettes, moving shadows, masks and more. Highlights include Redmoon Theater, original pieces by Chicago youths and demonstrations by Jabberwocky Marionettes.

Festival goers can also see *Julie Taymor: Playing with Fire*, which is at the Field from June 14 through Nov. 4. In this exhibition, extraordinary sets, masks, puppets and costumes by award-winning director Julie Taymor will ignite your imagination. Discover how Taymor, best known for her direction of Disney's *The Lion King* on Broadway and the feature film *Titus*, integrates different cultural traditions to create larger-than-life theater.

Puppetropolis Chicago will continue through June 24. For more information call 312.744.3315.

Julie Taymor: Playing with Fire was organized by the Wexner Center for the Arts at The Ohio State University.

The exhibition is made possible by a generous gift from Ford Motor Company. Major support is also provided by Agnes Gund and Daniel Shapiro, the John S. and James L. Knight Foundation and PricewaterhouseCoopers.

Puppetropolis Chicago community outreach programs are made possible by The Albert Pick, Jr. Fund. The festival is coordinated by the City of Chicago in collaboration with the Chicago Park District and The Field Museum.

*Redmoon Theater
to perform at
Puppetropolis
Chicago.*



Opening Week Activities for Julie Taymor: *Playing with Fire*



© RICHARD A. LOESCHNER CENTER FOR THE ARTS

Fool's Fire (Film Screening)

See Julie Taymor's remarkable artistry in action in this darkly comic fable. Screened in Hi-Definition.

Saturday, June 16, 2pm

\$4, plus Museum admission

Co-presented by The Field Museum, CineMuse and the Pittsburgh Center for the Arts

From Indonesia to The Lion King: Julie Taymor's Odyssey (Lecture)

Theater critic Roger Copeland will explore how Taymor melds diverse cultural art forms.

Sunday, June 17, 2pm

\$4, plus Museum admission

Ramayana (Performance)

Tamara and the Shadow Theatre of Java will present this beautiful Hindu-Javanese legend.

Friday, June 22 and Saturday, June 23, 2pm

\$4, plus Museum admission

The Selfish Giant (Performance)

Bill Hubner, of Disney's *The Lion King* on Broadway, will work with Chicago youth to present Oscar Wilde's short story through puppetry.

Sunday, June 24, 3:30pm

\$2, plus Museum admission

© MARN WIDHA, MIGN8934-14C

Join us for an evening of family fun and camp out amidst some of our most popular exhibitions. We'll celebrate Sue's first birthday with a variety of dinosaur-related activities.

For adults and children grades 1-6
 5:45pm on Friday, May 4 to
 9am on Saturday, May 5
 \$45; members \$38

Workshop

Green Light Performing Company

Dance the role of a T. rex, Triceratops or Stegosaurus and discover how bones can tell scientists about these ancient creatures.

For adults and children ages 3-7
 Saturdays through July 7, 1pm
 \$2, plus Museum admission

Workshop

Create your own T. rex or Apatosaur marionette out of fun foam. Learn how dinosaurs with differently shaped bodies might have moved.

For adults and children ages 6-10
 Sundays through July 8, 1pm
 \$8; members \$6

*Explore the origins of
 the Amazon River.*



© ZBIGNIEW BZDAK

Performing Arts/Lectures

New Discoveries Series

Tim Flannery, Director, South Australian Museum

Premier paleontologist Tim Flannery will unveil his latest book and trace the development of the North American landscape from an asteroid strike 65 million years ago to today.

Saturday, May 5, 2pm
 \$12; students/educators \$10; members \$8

Engravings on Stone

*Author Alec Campbell
 and Photographer David Coulson*

Discover an almost forgotten past through the rarely seen artistic masterpieces of our ancestors. Enjoy images and stories from the first comprehensive book on Africa's rock art.

Wednesday, May 16, 6:30pm
 \$12; students/educators
 \$10; members \$8



Below is a calendar of the temporary exhibitions you will have an opportunity to visit in 2001. Some dates may change. Remember to call or visit our website for specific information.



© JOHN WEINSTEIN/GN89090 108

Make your own roaring dinosaur puppet.

Gallery Performance

Teens Together Ensemble

Learn about the evolution of dinosaurs and the science of paleontology through dance and song.

*Every Saturday and Sunday in May, 11am and 1pm
FREE with Museum admission*

Workshop

Dr. David Willard, Collection Manager, Field Museum Division of Birds

Take an insider's tour of the Museum's bird collection and learn how ornithologists conduct their research. Then use our *Birds of the Midwest* guide on nature walks this summer.

*For adults and children grades 1 and up
Friday, June 15, 6–8pm
\$15; members \$12*



© JOHN WEINSTEIN, GN89270 36AC

This just in...

Internationally renowned paleoanthropologist and conservationist **Richard Leakey** will appear at the Field on May 10 at 6:30pm. Leakey is famous for his fossil finds, for taking on ivory poachers to save the African elephant and, most recently, for working to bring democracy to his native Kenya.

Call 312.665.7400 for details.



Richard Leakey

© ROYCE CARLTON, INC.

Exploring the Source of the Amazon River

Field Forum Series

*Explorers Zbigniew Bzdak,
Piotr Chmielinski and Andrew A. Pietowski*

Enjoy the riveting photographs and anecdotes of three Polish-American explorers from the expedition that, with support from National Geographic and the Smithsonian Institution, has finally pinpointed the source of the Amazon River.

*Lecture in Polish: Saturday, May 19, 1pm
Lecture in English: Saturday, May 19, 3pm
\$15; students/educators \$12; members \$10*

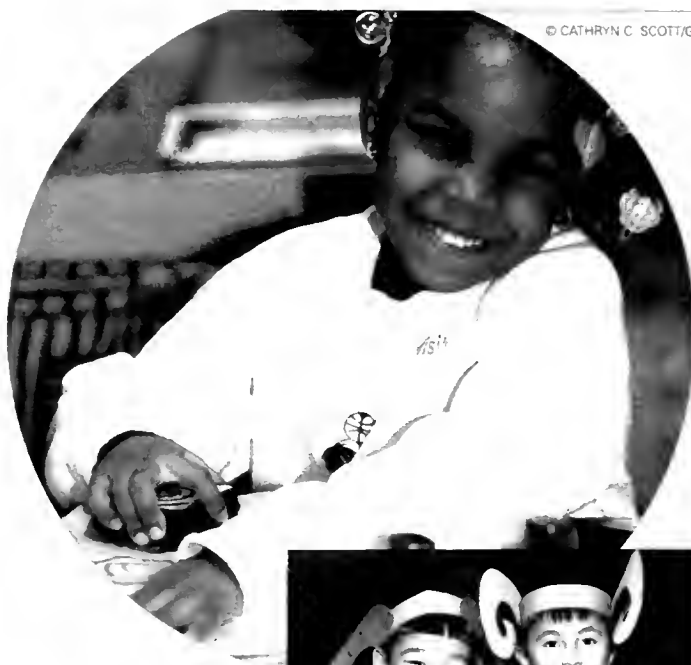
*Ticket includes admission to the Field
and Amazon Rising at Shedd Aquarium.*

Presented jointly by The Field Museum, Shedd Aquarium
and The Polish Museum of America.

Weave a fun-foam cloth and find other hands-on learning activities when you visit the special exhibition *Wrapped in Pride* or the permanent exhibition *Africa*.

Saturdays and Sundays from April 13–July 15, 10am–1pm
FREE with Museum admission

The Museum offers a variety of hands-on activities to make your family's visit special. Listen to stories, sing songs, dissect an owl pellet, make an art project and more! Check the Information Desk for details on the day of your visit.



*Fun activities can
make your family's
visit special.*



© KIMBERLY MAZANEK/GN9005 28AC

Adult Fieldtrips

Chicago Waterways

*Irving Cutler, Ph.D., Professor Emeritus,
Chicago State University*

From the Chicago Locks to the Calumet River, cruise Chicago's inland waterways to get a unique perspective on the ecological, economic and historical development of this great city.

Saturday, June 9, 9am–5pm
\$50; members \$43



Fielding Trip to Black County, Ohio

Alan Anderson, Naturalist

Break out the binoculars! The Ottawa National Wildlife Refuge is home to wetland birds, shorebirds, ducks, herons, hawks, migrant warblers and nesting bald eagles.

Friday–Sunday, May 18–20
\$185; members \$170

The Museum and the Chicago Audubon Society are co-sponsoring this trip.

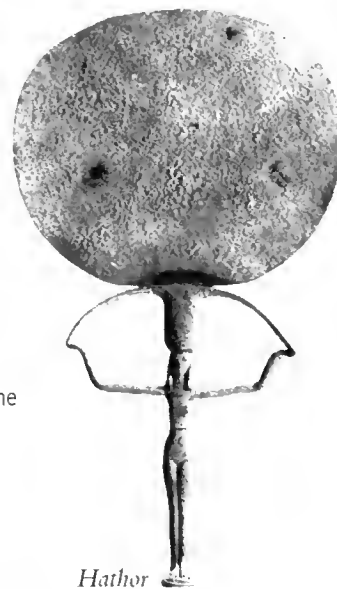
Adult Courses

The Goddess Hathor and the Temple of El-Tarif

Thomas Mudloff
*Consulting Egyptologist/Website
Moderator, Discovery Channel*

Discover how Hathor—sometimes worshipped as the Egyptian goddess of fertility, other times feared as the destructive Eye of Re—represents the “goddess principle” in myth.

Saturday, May 12
10am–4pm
\$55; members \$47



Hathor

The following activities are free with Museum admission.

Hear the stories behind some of our exciting exhibitions on our daily Highlights Tours. On weekdays, also look for tours of *Inside Ancient Egypt* and *Northwest Coast Indians* and *Eskimos*.

Meet Field Museum scientists and see rarely displayed specimens from our collections.

Every second Saturday of the month, 11am–2pm

Bring your own materials and get tips from artists and scientific illustrators as they create artwork inspired by our exhibitions.

Every third Saturday of the month, noon–3pm

May 23–25

The most fun you've ever had at a museum... the 48th Annual Members' Nights

Explore our research and collections areas.

Meet experts in botany, geology, zoology, anthropology and conservation.

Enjoy special presentations, entertainment, games and exhibits.

Revisit your favorite permanent exhibitions.

See page 21 for more details.



©RON TESTA/A108352



©FOREST PRESERVE OF DUPAGE COUNTY

Naturalist Certification Program

The Field Museum, The Morton Arboretum and the Chicago Botanic Garden are offering an integrated program for both beginners and more advanced naturalists. Call 312.665.7400 for a complete schedule of Naturalist Certificate courses throughout the summer.

Casey Sullivan
Urban Forester, Village of Riverside

Increase your enjoyment and understanding of the outdoors by learning about the biology and ecology of common trees in the Chicago region.

Wednesdays, June 13 and 20, 6–9pm
Saturdays, June 16, 23 and 30, 9am–noon
\$150; members \$120



Get your *Cleopatra of Egypt* tickets now!

Scheming seductress or political mastermind? Don't miss this chance to unravel Cleopatra's mystery. This exclusive exhibition is appearing only in Rome, London and at The Field Museum. See the feature story on page 17.

Member tickets are available beginning June 1, a month before ticket sales open to the general public. Call Ticketmaster at 312.902.1500; a service and transaction fee will be assessed.

KINETOSAURS

Kinetosaurs: Putting Some Teeth into Art and Science

Open through July 8, 2001

Hands-on fun brings dinosaurs to life. Set a T. rex and other life-size dinosaur sculptures into motion and learn how these enormous creatures may have run, roared and fought millions of years ago.

Visit Kinetosaurs on the weekend and enjoy additional gallery activities led by Museum staff.

Saturdays and Sundays through July 8, 10am–2pm

Kinetosaurs created by The Children's Museum of Indianapolis. Sculptures by John Payne of Payne Studios, Asheville, NC, 1998, 1999.

Wrapped in Pride: Ghanaian Kente and African American Identity

Open through July 15, 2001

Trace the origins of the kente cloth that is celebrated in Ghana. You'll discover how this colorful, bold fabric has become a powerful icon of African heritage for people throughout the world.

Join us at the **Kente Community Project Showcase** to see original artworks, research projects and performances that explore questions about African American identity.

Saturday, June 23, 11am–3pm

See the Family Programs listings inside for other exhibition-related activities.

This exhibition was organized by the UCLA Fowler Museum of Cultural History, Los Angeles, CA and the Newark Museum, Newark, NJ. The exhibition and its national tour are made possible by Ford Motor Company. Additional support for the Chicago presentation is provided by the Field Associates, the Elizabeth F. Cheney Foundation and Chicago Tribune.

Kente cloth is traditionally worn for ceremonial occasions in Ghana.



©UCLA FOWLER MUSEUM OF CULTURAL HISTORY

Visitor Information

Hours: 9am–5pm daily. Closed Christmas and New Year's Day.
From May 28–Sept. 3 we will open at 8am for extended summer hours.

To get tickets: *Living Colors: A Butterfly Garden*, *Julie Taymor: Playing with Fire* and *Kinetosaurs: Putting Some Teeth into Art and Science* are all specially ticketed exhibitions.

Member passes can be reserved in advance by calling Ticketmaster at 312.902.1500; a service charge and transaction fee will be assessed. Non-member tickets can also be reserved in advance through Ticketmaster.

Day-of tickets are available at the Museum, while supplies last.

Information: 312.922.9410 or www.fieldmuseum.org



©JOHN WEINSTEIN/GN89448 38C



© HARVEY JENSEN



© HILF/WEINSTEIN/©

Resembling a prehistoric tool or cresting wave, these oddly shaped teeth appear inefficient for tearing and chewing. They are, however, quite useful for this filter-feeding mammal commonly known as the crabeater seal (*Lobodon carcinophagus*). The seal feeds almost exclusively on tiny, shrimp-like krill. After taking in a mouthful of water, the seal closes its lobed teeth, forming a sieve to separate the water from the krill. Specimens such as this one, which was collected on the Ross Ice Shelf in 1934, are important examples of the diversity of seals, and mammals in general, and are what make the Museum's collections so valuable to evolutionary biologists and other scientists. You can see these teeth on exhibit in the Hall of Mammals.

Repatriation Law Alive at The Field Museum

Amy Cranch, Editor

Imagine a precious belonging—something beyond material value that holds deep emotional or spiritual meaning—being stripped from your ownership, leaving a void in your personal or cultural identity. For various Native American groups that sense of loss has been a pressing reality for at least a century, as many of their sacred and cultural objects and human remains are either gone forever or rest between the walls of museums.

The Field is negotiating the return of this Cape Fox totem pole, shown here ca. 1900 in the Museum's original Jackson Park home.



© THE FIELD MUSEUM/CSEA 1196

But under the provisions of a sweeping law passed about 10 years ago, many groups are welcoming back their artifacts of significance, and both sides—museums and Native Americans—are seeing its profound impact.

The 1990 Native American Graves Protection and Repatriation Act attempts to reconcile two divergent value systems, one based on seeking and disseminating knowledge and the other on spiritual and cultural values. When it was first passed, native peoples feared that harsh battles would erupt with museums, and museums worried that their collections would be gutted. While conflicts do arise, increased understanding has led museums to generally agree that native groups have a right to reclaim their sacred objects. Also, native groups often back the role museums play in preserving their artifacts and telling a historical story.

The Field Museum has returned three objects in recent years and is currently negotiating the repatriation of a totem pole, on view in the *Northwest Coast* exhibition, to its original Cape Fox owners. The pole, showing an eagle, thunderbird and bear, was taken in 1899 during the Harriman Expedition from an abandoned Tlingit village in Alaska.

Specific circumstances under which an item is returned vary from case to case. With the totem pole, it is unknown whether the village had been wiped out by smallpox or whether its inhabitants had temporarily moved elsewhere by the time the expedition arrived. Either way, it is clear that the pole was taken, providing solid grounds for the Cape Fox to reclaim it.

In another repatriation case, the Arizona State Museum traded Hohokam pots with The Field Museum in the 1950s. The original owners, the Gila River Indian Community, recently asked the Field to return these funerary objects. Since they had been acquired through legal means between two institutions, the community has designated the Arizona museum to serve as its official representative for the repatriation.

The Field has a long history of strong relationships with native groups, from inviting their counsel in building the Pawnee Earth Lodge and other Native American exhibitions, to opening the doors for native leaders to view, study or ceremoniously honor their objects, to returning specific culturally important objects in which an appropriate link was established to the requesting group. We have also discussed with groups how to treat materials with respect, which might include taking an object off exhibit or storing it in limited-access areas.

World history books are filled with stories of peoples who were conquered and lost aspects of their culture, and museums often hold traces of their past. The repatriation law forged a union between museums and native groups that was long overdue—the results showing benefits beyond the written law. While it is challenging to both sides, the law provides a workable means for native groups to reclaim vital parts of their heritage. The Field Museum's discussions with the Cape Fox regarding the return of the totem pole proves that the two sides can cooperate in the research and display or ownership and worship interests of all. **ITF**

Cheryl Bardoe, Staff Writer

Was she the most beautiful woman in the world? A seducer and destroyer of great men? One of the shrewdest political minds of her day?

Visitors can discover the truth for themselves at *Cleopatra of Egypt: From History to Myth*. This exclusive exhibition, which explores the life, liaisons and legend of Egypt's last queen, will appear only three places in the world: Rome, London and in Chicago at The Field Museum from Oct. 20, 2001 through March 3, 2002.

This major exhibition features more than 350 spectacular artifacts and priceless artworks from the world's premiere classical and Egyptian collections. Many of the pieces come from The British Museum in London, which organized the exhibition, and the Egyptian Museum in Cairo. Others come from the Louvre, the Hermitage, the Vatican and the Metropolitan Museum of Art.

"The breadth of the exhibition, the superior caliber of the artifacts and Cleopatra's powerful story combine to make this show an extraordinary experience," says David Foster of The Field Museum's exhibitions department. "This is a rare opportunity to understand who Cleopatra really was and why she is still so alive in Western culture today."

An Egyptian queen of Greek heritage, Cleopatra embodied the confluence of East and West. The exhibition reflects this dichotomy by presenting artworks from both traditions. Statues, busts and portraits in the stylized Egyptian manner illustrate how Cleopatra's subjects loved and worshipped her as a goddess. Artworks in the classical style portray Cleopatra's Greek ancestors and reveal how she captured imaginations during the two years that she lived in Rome as Julius Caesar's mistress.

"Egypt had fascinated the Romans for centuries," Foster explains. "Then in 46 B.C.E., Julius Caesar, the most powerful man in the Roman world, brings the queen of this wealthy, exotic land to Rome to be his mistress. The Romans were both scandalized and mesmerized. Women copied Cleopatra's hairstyle, Egyptian motifs entered into Roman decorative arts and Egyptian religions blossomed. It could be called the first wave of 'Egyptomania.'"

Cleopatra is best remembered for her love affairs—first with Caesar and then with Marc Antony, the seasoned general who vied for control of the Roman world after Caesar's death. When Caesar's heir defeated Antony and Cleopatra, the two lovers committed suicide in one of history's most passionate scenes.

Cleopatra of Egypt reveals that these alliances were as political as they were personal. Rome needed the wealth and agricultural resources of Egypt, the Mediterranean world's breadbasket, to grow. A savvy strategist, Cleopatra traded these assets for the security of her throne and preserved her nation's independence for 20 years while the Romans conquered the rest of the Western world.

For 2,000 years Cleopatra's story has endured through countless poems, songs, paintings, plays, books and movies. The final section of the exhibition, designed by the Field specifically for the U.S. presentation, traces how Cleopatra's legend has evolved to reflect the morals of each succeeding age.

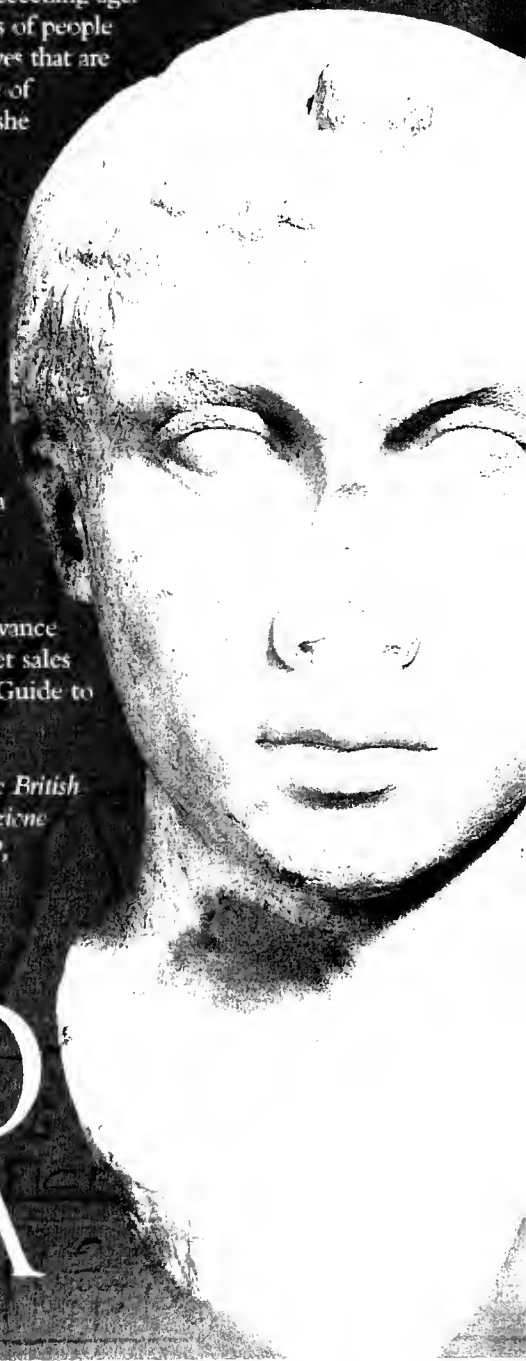
"Human beings seem to need stories of people that we know are real, but who lived lives that are larger than ours," Foster says. "By virtue of who she was, when she lived and how she lived her life, Cleopatra's story has become a magnet for more stories, and more layers of meaning."

Over the years Cleopatra has been condemned as a manipulative, greedy destroyer of men; heralded as the soul of courtly love; envied as a sensual, passionate beauty; and admired as a courageous, complex heroine. Now *Cleopatra of Egypt* adds two more faces to the mix. She was an intelligent, gifted leader. And she was a woman who—centuries after her death—still has the power to capture our imagination.

Field members can reserve their advance tickets to *Cleopatra of Egypt* before ticket sales open to the general public. See Your Guide to the Field for details. **TF**

This exhibition has been organized by The British Museum in collaboration with The Fondazione Memmo, Rome. International Sponsor BP, National Sponsor Exelon.

CLEOPATRA



Celebrities Make Faces at the Field

Masks are tools for transformation and self-expression, artistic windows into a broader cultural story. They are alternately charming and macabre, holy and heathen.

On Friday, June 8, from 7pm to midnight, The Field Museum will host *Faces in the Field*, an exploration of the Museum's nearly 6,000 masks from around the world, plus an auction of masks created by famous people in entertainment, art, music, fashion, business, politics and sports. Guests can voyage through the exhibit halls to see spectacular masks. Anthropology curators will be on hand to unlock the mysteries of this incredible, diverse collection.

Regional entertainment will fill Stanley Field Hall, from colorful Chinese lion dancers to the haunting, earthy tones of an Australian didgeridoo. Sotheby's will lead the auction of these one-of-a-kind masks, created by such distinguished celebrities as Sue Hendrickson, Bill Cosby, Ernie Banks, Yoko Ono, Colin Powell, John Travolta and Donald Trump.

Admission is \$100, which includes hors d'oeuvres, cocktails, entertainment and the silent and live auctions. Proceeds will support the restoration of our anthropological collections, including the conservation and preservation of our mask collection. For tickets, call 312.665.7124.



1. Robert Altman 2. Gary Fencik 3. Edward Paschke 4. Yoko Ono Lennon 5. Sam Zell 6. Victor Skrebneski 7. Dan Roan 8. Dan Jiggets 9. Ronald J. Gidwitz 10. Mike Ditka 11. Marcos Roy, commissioned by Roy and Mary Cullen 12. Ernie Banks

© JOHN WEINSTEIN/AMERICA'S 15, 112, 8, 87, 61, 37, 27, 46, 6, 72, 3

Federal Funds Support Museum Plans

The Field Museum proudly thanks U.S. Senators Richard "Dick" Durbin (D-Ill.) and Peter Fitzgerald (R-Ill.) and U.S. Representatives Danny K. Davis (D-Ill.-7) and Jan Schakowsky (D-Ill.-9) for securing federal funds in the 106th Congress for Museum programs and initiatives.

These members of the Illinois delegation, with help from U.S. Senator Christopher "Kit" Bond (R-Mo.) and U.S. Representative Dave Obey (D-Wis.-7), obtained funds in the fiscal year 2001 budget of the U.S. Department of Housing and Urban Development (HUD) for two major capital projects—expansion of the dinosaur hall and the Sidney R. and Addie Yates Exhibition Center.

The dinosaur hall, *Life Over Time*, received \$1.1 million to fill in the northeast light well, located between the wings of this exhibition. (The five other original light wells have been reconstructed to provide additional storage and exhibition space.) Sens. Durbin and Fitzgerald also secured \$250,000 from NASA to provide funds for research in paleontology and earth sciences. The Museum will continue working with the Illinois congressional delegation to gain funding for educational programming related to paleontology and earth sciences, including electronic fieldtrips, in which students can see and talk to scientists in the field as they are conducting excavations and research.

Also, thanks to Reps. Davis and Schakowsky, the Museum will receive an additional \$1 million from HUD's Economic Development Initiative to expand the Yates Exhibition Center, allowing for all temporary exhibitions to be housed on the main floor. (Rep. Schakowsky won the 9th District House seat upon the retirement of Congressman Yates, who died last October.)

The new configuration will increase the Museum's flexibility to install exhibitions up to 20,000 sq. feet or two or three separate exhibitions at 7,000 sq. feet each. It will also make room for the new East Entrance on the ground floor.

Please join the Museum in thanking Sens. Durbin and Fitzgerald and Reps. Davis and Schakowsky. For more information on federal support, contact Fay Hartog Levin, Vice President of External Affairs, at 312.665.7220.



©PHOTO-OP, INC

Sen. Peter Fitzgerald (R-Ill.) and Sen. Dick Durbin (D-Ill.) are getting ready to unveil Sue the T. rex as Rep. Judy Biggert (R-Ill.-13), Rep. Jan Schakowsky (D-Ill.-9) and Rep. Danny K. Davis (D-Ill.-7) wait with excitement.

Butterflies in the Field to Benefit Parental Involvement Project

Stanley Field Hall will be transformed through light, sound and scent into a glorious fairytale garden on Friday, June 22, for Butterflies in the Field, the Field Associates' annual Field Trip summer gala. Inspired by the exhibition *Living Colors: A Butterfly Garden*, this black-tie event will benefit the Museum's award-winning Parental Involvement Project.

Guests will enjoy an elaborate buffet catered by Chicago's premier restaurants, a full open bar, dancing to live entertainment and a raffle with wonderful items from some of Chicago's favorite stores, salons and restaurants. Guests will also be able to privately peruse the Museum's exhibits.

The Field Associates is a diverse group of young professionals committed to promoting the Museum's collections, research and public programs. The Parental Involvement Project (PIP), one of the group's primary funding and volunteer projects, gives parents the resources to better assist their children's educational progress and expose them to cultural activity at an early age. PIP invites inner-city families to the Museum once a month to promote learning as a family experience.

Tickets for Butterflies in the Field are \$75 for Field Associate members, \$85 for non-members, or \$100 at the door. For information, call Marcie Rawls at 312.665.7137, or visit www.fieldmuseum.org.

World War II Remembered

Alan Sheffner, Volunteer

World War II affected The Field Museum as it did nearly every U.S. institution. In all, 40 members of the Field family, from guards to trustees, served in all theaters of action at ranks ranging from private to brigadier general. A 1942 *Field Museum News* article said that the employees serving then represented more than 14 percent of the staff, greatly influencing daily operations. Volunteer Ellen Smith, for example, ran the bird division by herself for two years.

While research on the existing collections continued vigorously during WWII, expeditions to most foreign lands suffered. Nevertheless, sizeable numbers of specimens arrived at the Field during the war, some from areas that were neither well represented in the collections nor well known to most Americans before they became battle sites.

How did this wealth of material arrive during wartime? Many people maintain their interests even during trying times. Collectors, amateur and professional alike, often collect under any circumstance. Field staff members who served in the war sent large, diverse collections back to the Museum. William Beecher, the most prolific collector of the naturalist servicemen who later became director of the Chicago Academy of Sciences, sent specimens in wooden boxes from the military kitchen. One shipment from the Solomon Islands contained one crayfish, 19 fishes, 40 lizards, 17 snakes, six frogs, 52 bats, a cuscus skull, three birds and 49 insects.

Melvin Traylor's wartime contributions were made under quite different circumstances. Traylor,

now curator emeritus of birds, joined the Marine Corps in 1941 and was assigned to officer training school in Samoa despite his private first class rank. His brigade was sent to Guadalcanal in 1942, where the American troops had only partial control. While there, Traylor's patrol was caught off-guard by Japanese gunfire. When he realized he was the only officer alive, he took over and led his patrol to safety.

About one year after earning a silver star for his actions, Traylor was hit by shrapnel, lost his eye and was hospitalized in San Diego. His eventual involvement with the Scripps Institution of Oceanography brought him, still in uniform, to Bikini Atoll to determine the effects of air and underwater atomic bomb explosions on commercial fishes. Before departing, Traylor asked the Museum to send his bird-collecting supplies, which he used to sample fairy terns, common and white-capped noddies and other local island species.

The Field still commemorates those who served during WWII in a section of its *Pacific Spirits* exhibition. The display includes a book of WWII memories—from tragic to humorous to poignant—contributed by Museum visitors. One person wrote of a loved one, "He stayed up for three days straight doing his watch and nursing the wounded, who covered the entire flight deck of the U.S.S. *Lexington*." We invite you to read and contribute to this ongoing memorial, located in the back of *Pacific Spirits* on the west side of the Museum's upper level.

In 1946, Melvin Traylor, then an associate in the bird division, stumbled across a common noddy nest in Bikini Atoll while on duty to test the effects of atomic bombs on commercial fishes.



©MELVIN TRAYLOR

Members' Nights

The most fun you've ever had at a museum...the 48th Annual Members' Nights
May 23, 24 or 25, 5pm–10pm

- **Explore** areas of our vast collections that are normally off-limits to the public.
- **Meet** experts who work in the Museum's laboratories and academic departments.
- **Experience** presentations created especially for members.
- **Enjoy** special entertainment, games and exhibits for kids.
- **Dance** to music from various cultures.
- **Discover** where exhibits are developed.
- **Revisit** your favorite permanent exhibitions.

Order your FREE tickets by May 11! Look for the invitation in the mail, or call 312.665.7700 to register.

Please don't delay. Members must order advance tickets by May 11. Wednesday and Thursday evenings will be less crowded than Friday. You may share Members' Night with friends with the two complimentary guest passes you will receive when you order.

Food Service

The Corner Bakery and McDonald's will be open from 5 until 9:30pm. The ground floor vending areas will be open from 5 until 10pm.

Transportation and Parking

Parking is available in the Soldier Field parking lot for \$7.75 per car. Free trolleys will transport you between the parking lot and the Museum's south entrance until 10:30pm.

A free shuttle bus service will also operate from the Union and Northwestern Stations to the Museum between 4:30 and 10:30pm at approximately 25-minute intervals. Look for the Ryder school buses with a Field Museum placard in the window.



©DIANE ALEXANDER WHITE/IGN87828C 24



©JOHN WEINSTEIN/IGN87828C 9A

Barry Chernoff (above), associate curator of fishes, and Meenakshi Wadhwa (left), associate curator of meteorites, share their work with curious members at a previous Members' Night.

Important Reminder: The Museum and restaurants will close to all visitors, including members and their guests, between 4 and 5pm to prepare for the evening. There will be no admittance until 5pm, no exceptions. Please plan your arrival time accordingly. For membership information, call 312.665.7700.

Do you have friends or family visiting this summer?

Now through Labor Day, two premier downtown hotels, the Hilton Chicago and the Palmer House Hilton, are offering special room rates starting from \$189 per night—and children can stay for free. This package also includes a lavish breakfast buffet, use of the indoor swimming pool, free general admission tickets to The Field Museum and a Sue goody bag. For reservations call the Hilton Chicago at 877.865.5320, or the Palmer House Hilton at 877.865.5321, and mention code P8.

Egypt Revisited

Oct. 14–28, 2001 (15 days)

Visit spectacular archaeological sites and monuments not seen on your first trip. (First-time visitors should see Egyptian Odyssey below.) Highlights include Abusir, Dashur, Maidum, Faiyum, Tanus, Abydos, Dendara, dawn at Abu Simbel and three nights cruising Lake Nasser, plus lesser-known sites in Cairo, Luxor and Aswan.

Museum Leader: Egyptologist Frank Yurco

Nature and History of New Zealand

Oct. 27–Nov. 14, 2001 (19 days)

New Zealand's natural and cultural diversity will astound you. On North Island visit Goat Island Marine Reserve, Tongariro National Park, the New Zealand Maori Arts and Crafts Institute, Tokomaru Bay, Gisborne and Wellington's Museum of New Zealand and Botanic Gardens. On South Island tour Christchurch's Canterbury Museum, Dunedin, Queenstown and Milford Sound.

Museum Leaders: Anthropologist John Terrell and Geologist Scott Lidgard

Egyptian Odyssey

Oct. 28–Nov. 11, 2001 (15 days)

Jan. 27–Feb. 10, 2002 (15 days)

Explore the amazing world of Egypt's ancient pharaohs by land and riverboat. Discover astounding archaeological sites, including the famed pyramids of Giza, the site of ancient Thebes, the three colossi of Ramses II and the Valley of Kings.

Museum Leader: Oct. leader TB.A; Jan. leader, Egyptologist Frank Yurco



We'll visit Luxor's Karnak temple, the most impressive temple complex in Egypt, on both the Egyptian Odyssey and Egypt Revisited tours. The complex also includes the Great Temple of Amun, whose hypostyle hall features massive columns decorated in relief.

Amazon by Riverboat

Dec. 1–9, 2001 (9 days)

Cruise aboard a 14-cabin riverboat, exploring the remote upper reaches of the Amazon River system. Experience the lush forests and plentiful wildlife of the Amazon jungle. Optional extension to Cuzco and Machu Picchu.

Museum Leader: TB.A

Mysteries of Earth by Private Jet

Dec. 30, 2001–Jan. 23, 2002 (25 days)

Travel aboard a private, first-class jet on a once-in-a-lifetime journey to the world's most remote habitats: the vast flora and fauna of the Amazon; volcanic Canary Islands; great apes of Borneo; annual migration in Tanzania; wildlife of Nepal; rare species of the Galapagos; undersea life of

the Great Barrier Reef; intriguing moai of Easter Island; tribal cultures of Papua New Guinea; the secluded Seychelles; and the Polynesian culture of Samoa.

Guest Leader: Renowned expert on evolution, Stephen Jay Gould

Tanzania Migration Safari

Feb. 1–14, 2002 (14 days)

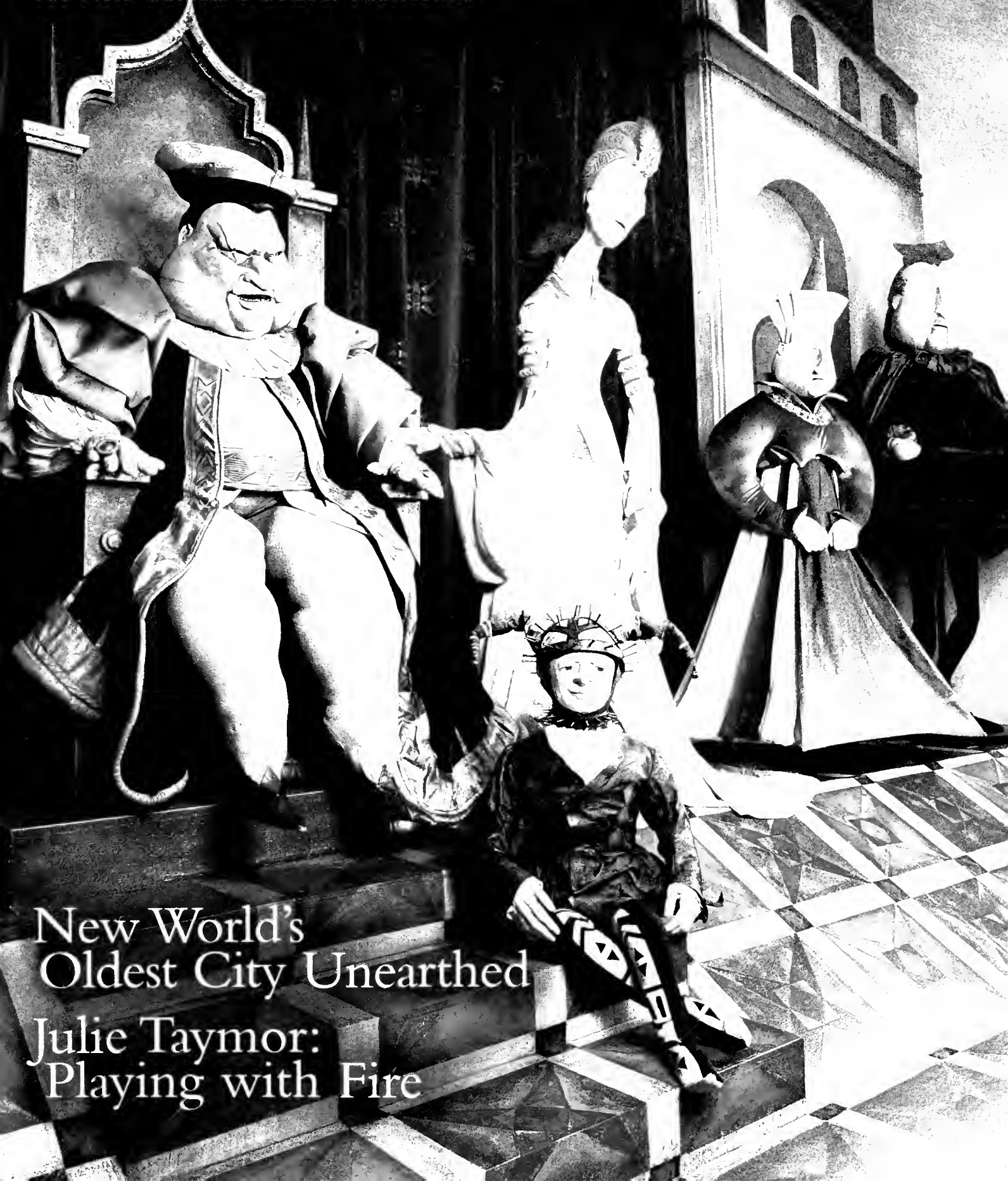
Experience the spectacular herds of the Serengeti Plains. Hundreds of thousands of wildebeest and tens of thousands of zebras and antelope amass in this area each year, attended by lions, cheetahs, hyenas and other predators. Enjoy four days in the Serengeti, then three days at Ngorongoro Crater.

Museum Leaders: Bill Stanley and Mary Anne Rogers, Field Museum zoologists

INTHEFIELD

July
August
2001

The Field Museum's Member Publication



New World's
Oldest City Unearthed

Julie Taymor:
Playing with Fire

Recent Successes With Global Impact



J. WEINSTEIN/CORBIS 119 6

When we announced that a **large, complex society had arisen in Caral, Peru**, five centuries earlier than anyone had thought, nearly every major media outlet covered it, from the *Los Angeles Times* to the *New York Times*, NPR to BBC, *Newsweek* to *U.S. News & World Report*. Ruth Shady Solís of San Marcos National University in Lima, along with Field anthropologists Jonathan Haas and Winifred Creamer, questioned whether a lack of ceramics meant the civilization was younger or less complex. Their tests proved that the ruins date back as early as 2627 B.C.E.—when the pyramids were being built in Egypt. (Story on page 2.)

Since our rapid biological inventory last fall in the Cordillera Azul mountains in another part of Peru, we, along with our lead Peruvian partner APECO and others,

have been working toward the **creation of a new national park**. Just before press time, the president of Peru signed it into law. This park will ensure the protection of more than 5,000 sq. miles of pristine forest—slightly larger than Connecticut—and its unique biological communities that are among the most diverse of all existing conservation areas in Peru.

Zoologists Tom Gnoske and Julian Peterhans Kerbis just returned from working with the World Wildlife Fund (WWF) to **inventory the birds and mammals of Bhutan**. Virtually everything collected is a new record for this mysterious Himalayan country, only recently opened up to the Western world, including several species from the Alpine zone that have close relatives right here in North America. We hope to work with WWF-Bhutan to establish the country's first natural history museum.

Guggenheim fellowships were awarded to Dr. John J. Flynn, MacArthur curator of geology, and Steve Fiffer, author of *Tyrannosaurus Sue*. Flynn, known for several major fossil finds and his role in the acquisition and research of Sue, will work on the interplay of evolution and geologic

change in South America. Fiffer, an Evanston attorney who wrote about Sue's discovery and acquisition, will write a history of medical knowledge about the spinal cord.

We are making a **cast of Magdalenian Girl**, our cherished Ice Age skeleton, to send to France this summer. It will be installed where she was discovered at Cap Blanc in the Dordogne Valley. It is fitting that an exact replica of the original skeleton can be returned to the original site of her burial 14,000 years ago. We are taking advantage of the casting program to conduct radiocarbon dating and DNA testing on the original skeleton. Once the work has been completed, the original skeleton will be returned to our *Life Over Time* exhibition on the Museum's second floor.

These are five accomplishments that represent the global impact of your Museum. Thank you for making these efforts possible.

John W. McCarter, Jr.

John W. McCarter, Jr.
President & CEO

What do you think about In the Field?

Please send comments or questions to Amy Cranch, publications manager, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496, or via email at acranch@fmnh.org.

IN THE FIELD INSIDE

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The cover image highlights the *Fool's Fire* installation in Julie Taymor: *Playing with Fire*, open June 14 through Nov. 4, 2001 (J. Weinstein/GN9019C).

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**The Field
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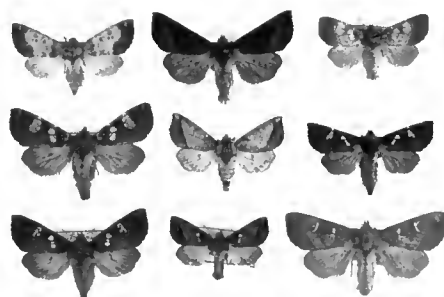


COURTESY OF J. HAAS

2

Field Museum anthropologists help discover the Americas' oldest city.

Left: This civilization was one of the first in the Americas to use irrigation.



COURTESY OF P. GOLDSTEIN

4

Behind the beauty of butterflies and moths are clues to evolution and conserving our ecosystems.

Left: Owllet moths, Papaipema.

15

Take a microscopic look at a Martian meteorite in Scientist's Pick.

16

A Tanzania trip participant shares journal excerpts on her experiences with the African landscape and wildlife.

Left: Baby baboons rode their mothers' backs like jockeys.



© ROBIN COLBURN

Shedd Aquarium Shedd Aquarium's Oceanarium Turns 10 celebration offers *The Best of Belugas* in July. Come to a beluga birthday party on July 15 to celebrate as Qannik, the male calf, turns a year old. August is devoted to *The Dolphin Days of Summer*, saluting the high-flying Pacific white-sided dolphins with dynamic activities and new interactive programs. Free with admission. Call 312.939.2438 or check www.sheddaquarium.org for information.

Adler Planetarium *Dawn of the Space Age*, a new exhibition, traces the fascinating story of American space exploration with original prototype rockets and original oil paintings by space artist Chesley Bonestell. Also, Luna Cabana offers 13 weeks of live Salsa music, free dance instruction and Latin-inspired food and drinks on Thursday nights through Aug. 30 from 5 to 10pm. Admission is \$3. For information, visit www.adlerplanetarium.org, or call 312.922.STAR.

New Trolley Routes The City has expanded the free trolley service to include two new downtown routes that connect CTA, Metra and Amtrak stations to the Museum Campus and Navy Pier. The trolleys run approximately every 30 minutes between 10am and 6pm daily, Memorial Day through Labor Day. Visit www.cityofchicago.org/Transportation/trolleys for the hours, destinations and connections to the trains, or pick up a route map at the Museum Campus welcome centers.

Field Museum Anthropologists Help Establish Date of the Americas' Oldest City

Greg Borzo, Media Manager, Academic Affairs; Photos courtesy of Jonathan Haas, Anthropology

When reed-woven bowls have been found among the ruins, the real age of the ancient site of Caral might have been determined long ago. First discovered in 1905, the site was largely ignored by anthropologists with its monumental architecture and advanced irrigation systems but lack of pottery remains and other riches that mark most complex civilizations. Hence it was largely ignored until instinct grabbed a team of archaeologists finding the grid terraces in 1999 and told them to take a closer look.



Structures of wooden poles, mud and cane, much like the homes of today (left), housed servants or peasants who farmed or hauled rocks to build the pyramids. The remains of an adobe-walled home (right) indicate higher status.



New radiocarbon dates of the reed-woven bags found within walls indicate that Caral, 120 miles north of Lima, was home to the earliest known urban settlement in the New World. The surprising evidence pushes the development of these advances in the Americas back to as early as 2627 B.C.E.—about the same time the Egyptians were building their own pyramids.

“Our findings show that a very large, complex society had arisen on the coast of Peru centuries earlier than anyone thought,” said Jonathan Haas, Ph.D., MacArthur curator of anthropology at The Field Museum. The new research, published in *Science* in April, was conducted by Haas, Dr. Ruth Shady Solís of San Marcos National University and the study’s lead author, and Dr. Winifred Creamer, associate professor of anthropology at Northern Illinois University and a Field Museum adjunct curator.

Sitting above the green valley floor, Caral would be easy to overlook with its sun-dried desert hills surrounding a cluster of simple earthen mounds.

But beneath each dry shell lies a terraced pyramid structure built some 4,600 years ago. There are also sunken plazas, residential neighborhoods and several smaller mounds—all erected before ceramics were introduced in Peru. As one of 18 large contemporary sites in the Supe Valley of Peru’s Pacific Coast, these sites played a pivotal role in the social, political and economic development of civilization in South America.

The radiocarbon samples were taken in conjunction with Dr. Shady’s ongoing research. Excavations are focused on assessing the range and function of architectural features and determining the sequence and construction methods of the site’s colossal mounds.

Pyramids dominate landscape

Caral’s central zone contains six large platform mounds arranged around a huge public plaza 1,800 feet in diameter. The largest mound, “Piramide Mayor,” measures 60 feet high and 450-by-500 feet

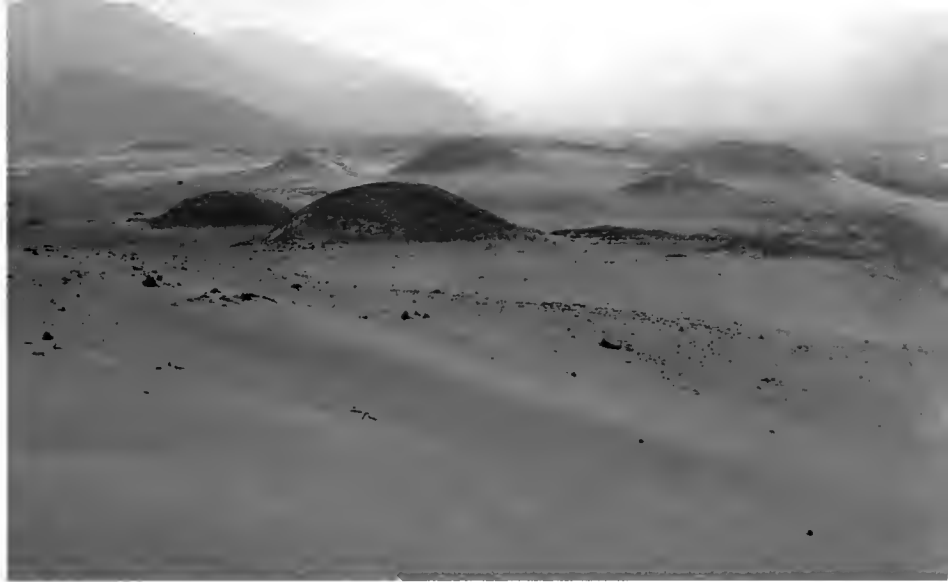
at the base. The mounds were built by piling mesh sacks, filled with rocks from the riverbed and surrounding hills, inside retaining walls that formed the base. They were also painted in pinks, blues, yellows and other earth tones to enhance their magnificence. Research indicates that all six mounds were built in only one or two phases, indicating complex planning, centralized decision-making and mobilization of large labor forces.

While Egypt's pyramids contained halls and rooms inside them, stairs, rooms, courtyards and other structures were constructed on the tops and sides of the Caral pyramids. Excavations will determine whether there are rooms, passageways or even tombs inside the Caral mounds.

Other architecture at the site indicates a high level of cultural complexity. The varied styles and quality of Caral's housing point to a richly stratified society. And three sunken circular plazas, the largest of which is 150 feet in diameter, testify to the emergence of a well-organized religion with open, public ceremonies. Such plazas are an architectural form that continued throughout the Andes for several thousand years.

Ultimately, the social, political and religious system founded in the Supe Valley provided ancestral roots for the great civilization of the Incas, who ruled the Andes some 4,000 years later when the first Europeans arrived in the 16th century.

Other villages in Peru were occupied before 2600 B.C.E., and some of them even had small-scale public platforms or stone rings. However, all sites in the Americas occupied in the third millennium B.C.E. are dwarfed by the 200-acre size of Caral and its huge monuments. Of the 18 recorded preceramic sites in the Supe Valley, 10 are more than 60 acres in size. Any one of these 10, if taken alone, would probably be the largest settlement in the New World during the same period. Collectively, this



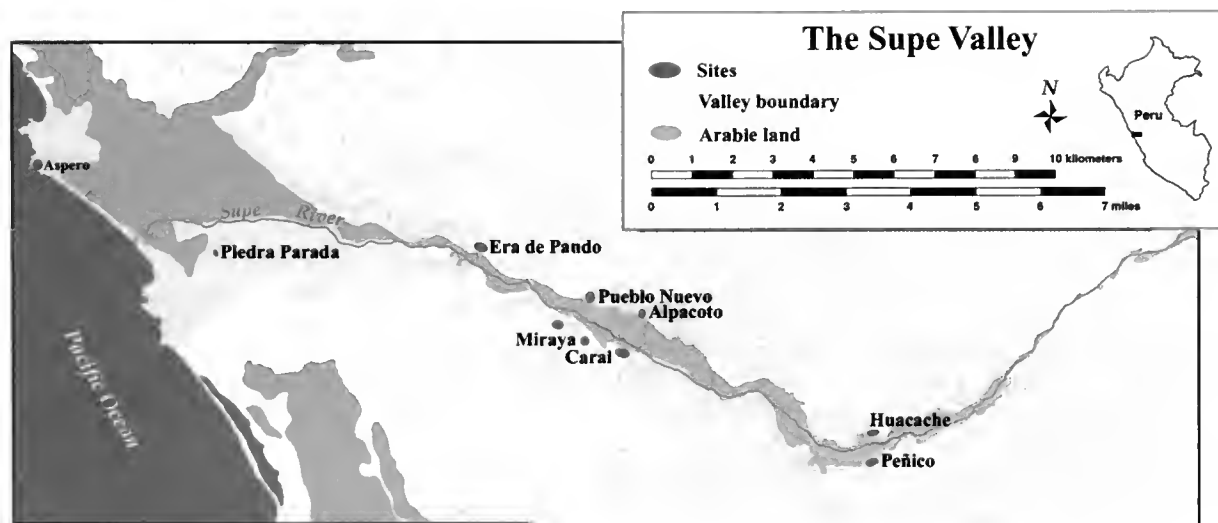
The pyramids of Caral are buried beneath millennia of windblown sand.

concentration of urban settlements—all with monumental architecture and all based on irrigation—is simply unparalleled in any period.

Caral's location some 14 miles inland from the Pacific is also important. Because the Peruvian coast is extremely arid, the only source of water for fields is the Supe River, and the only way to get the river water to arable land is by way of irrigation canals. Thus, as Dr. Creamer noted, "The farmers at Caral may have been the Americas' first pioneers to build canals and open the vast potential of channeling river water to rich desert lands surrounding a river's valley bottom."

Caral's domesticated plants included squash, beans and cotton. No corn has been found, and its absence establishes for the first time that this starchy staple was not necessary to the development of a complex society in South America.

"Caral offers an opportunity to investigate one of the fundamental questions of Western archaeology and social science, namely, what is the origin of complex, centralized, highly organized society in the Americas?" Dr. Haas said. "This is a project that comes along once in a generation and offers opportunities rarely glimpsed in the field of archaeology." **ITF**



This map shows the Supe River valley of Peru where Caral is located.

The Facts Fluttering From Wings

Paul Z. Goldstein, Assistant Curator of Insects, Zoology

Inspiring poems, paintings, fables and fashion, butterflies and moths have attracted scientists and laypeople for centuries. While their loveliness captures our imagination, they also provide vital evolutionary clues and act as litmus tests for evaluating the integrity of our native ecosystems. Our summer exhibition, *Living Colors: A Butterfly Garden*, showcases the beauty of butterflies and moths alongside the importance of museum science in studying these fascinating creatures.

Butterflies and moths make up one of the largest orders of insects, with more than 145,000 known species in habitats ranging from the Arctic tundra to your own backyard. Many more species await discovery. They are collectively known as Lepidoptera, or "scale-winged" insects, referring to the thousands of microscopic, shingle-like scales that cover their wings and give them their colors. Most Lepidoptera—44 of 46 recognized superfamilies—are, in fact, moths, while butterflies and skippers comprise only about 20,000 species. In a way, butterflies are moths that have evolved unique features and habits.

The Field Museum boasts one of the United States' most important butterfly and moth collections—approximately 200,000 specimens and growing. The largest segment, more than 50,000 specimens, was amassed by Herman F. Strecker, a professional sculptor whose passion was collecting butterflies and describing new species. An obsessive collector, Strecker devoted years of his life to building what was then considered one of the best collections of worldwide butterflies. The Museum purchased the collection in 1908 for \$15,000, and

it took William Gerhard, the sole curator of insects at the time, more than three months to prepare the collection for the train journey from Pennsylvania to Chicago. It was rumored that Strecker's fanatical nature got the better of him, and that his relationship with several contemporary lepidopterists became strained when he "borrowed" important specimens from their collections.

Biological collections, the backbone of museum science, are the world's taxonomic libraries that enable scientists to catalog life on Earth and our understanding of its evolutionary history. Without specimen collections, there could be no progress in taxonomy or systematics because there would be no "permanent" specimens to which we could anchor names. We would also be unable to understand patterns of faunal change over time; many of our Lepidoptera specimens were collected from natural areas that have since disappeared.

Of local concern is the profound degradation of prairie habitats in the past century. Because so many butterflies and moths require prairie or prairie-like habitats for survival, they are valuable indicator species that can help prioritize areas for conservation and evaluate different landscape management techniques. Last summer Field Museum scientists began inputting data from specimens associated exclusively with threatened prairie habitats into a database. The data will be incorporated into a larger database that includes similar information from other museum and university collections.

Until 1999, Gerhard had been the only lepidopterist to occupy a curatorial position at The Field Museum. Much has changed since his day for both museum science and exhibitry. First erected in 1998, *Living Colors* highlights a relatively new phenomenon for museums—exhibitions that feature live animals. The Field was one of the first museums to erect a live butterfly exhibition.

The Field Museum has also kept pace with high-tech scientific developments. Several zoology and botany staff members use the Pritzker Laboratory for Molecular Systematics to study organismal relationships and evolution using DNA.

Our collections are historical resources that help researchers worldwide discover, describe and formally name new species.



D. KIEFER



J. WEINSTEIN/GN88714-23C

Gulf fritillary, Agraulis vanillae

Elaborate lasers help us determine the sequence of nucleotides in portions of the DNA molecule. Various computer programs then analyze these sequences to generate hypotheses, known as phylogenetic trees, of how different species are related to one another. In principle, these techniques can be applied to any group of living organisms.

Part of the research focuses on owlet moths, the largest family of Lepidoptera. Using the phylogenetic trees, it is possible to infer evolutionary stages of many of their features. We are particularly interested in how the larvae of herbivorous insects evolve to feed on different host plants, especially those whose chemicals act as defensive compounds. The ancestors of the owlet moths fed primarily on grasses and their relatives and have only recently adapted to flowering plants, many of which are extremely toxic.

Many of our curatorial staff are involved with local and international conservation programs. Since most butterflies and moths have extremely specific living requirements, they are especially good gauges of habitat health. Most caterpillars, for example, only feed on one to a few closely related plant species. The caterpillar of one threatened prairie species, the Rattlesnake Master borer moth (*Papaipema eryngii*), feeds exclusively in the roots of Rattlesnake Master (*Eryngium yuccifolium*). Its decline, therefore, could signal that the plant species is in trouble.

Butterfly and moth species may also have light, temperature, humidity and soil hydrology requirements that we do not know much about, and these insects often disappear from threatened habitats

before we see troubling signs. Techniques to manage and protect natural areas, including prescribed burning, mowing and selective application of herbicides to control invasive plant species, are greatly enhanced by continually evaluating their effects on populations of butterflies and moths. **ITF**

Learn more about butterfly and moth biology and conservation at Living Colors, open through Sept. 3. Pick up the brochure about growing your own butterfly garden, or call 312.665.7400 for information on educational programs.

Living Colors: A Butterfly Garden is created by The Field Museum.

Paul Goldstein (right) works with a student to pin species they collected in Madidi, Bolivia.



COURTESY OF P. GOLDSTEIN

A Word from Our President

You may recall the Museum's \$40 million request to the State of Illinois to build a new Collections Resource Center and East Entrance. After many anxious months, we received confirmation that this year's budget contains \$20 million for the first phase of constructing the center. We hope and expect that the second installment of \$20 million will be in next year's budget, and we are prepared to push the start of construction to the earliest date feasible.

We especially thank Ron Gidwitz, Chairman of the Board of Trustees, for his extraordinary

leadership throughout this initiative. Ron's strategic vision, commitment and concern kept this initiative alive.

We are also grateful for your tremendous support and participation. We are told that our statewide communications effort was both impressive and unprecedented—generating more than 20,000 letters, cards, emails and calls. We are confident that every legislator who received communications on this initiative will not soon forget the strength of our voice.

With gratitude and humility, we thank you.

Revisiting the Origin of Life

While traditional belief places humans at the apex of evolution, it may be more accurate to think of ourselves as a colony of closely associated bacteria, according to evolutionist Lynn Margulis, Ph.D. Science has primarily focused on plant and animal species to decipher evolution, but it is now more understood that bacteria, Earth's only inhabitants for the first two billion years, are the foundation of all life and its processes. Without bacteria, for example, there would be no fermentation, photosynthesis or oxygen breathing.

The Founders' Council presented the 2001 Award of Merit, given annually to an individual who has brought understanding of the environment to the public, to Dr. Margulis, a distinguished professor at the University of

Massachusetts. In her presentation, *The Origin of Species Revisited*, Dr. Margulis refined Darwinian and Lamarckian concepts of evolution to show how crucial bacteria and other microbes are in the evolutionary history of life.

Dr. Margulis bases her work on the serial endosymbiosis theory (SET), first proposed 30 years ago, in which life made of nucleated cells evolved through symbiotic relationships among bacteria. Mitochondria, organelles of a cell that function as power plants, contain their own DNA apart from that found in a nucleus. This "extra" DNA, she proposes, is a fossil of an ancient event in which one organism ate but failed to digest another: two different organisms formed new cells. Animal and plant cells can do neither; they cannot split to yield offspring or freely exchange genes with different organisms to change into another form. Dr. Margulis thinks symbioses like these enabled life to evolve rapidly. Since there are so many bacteria and they reproduce so easily, the result is a planet made fertile and habitable for larger life forms.

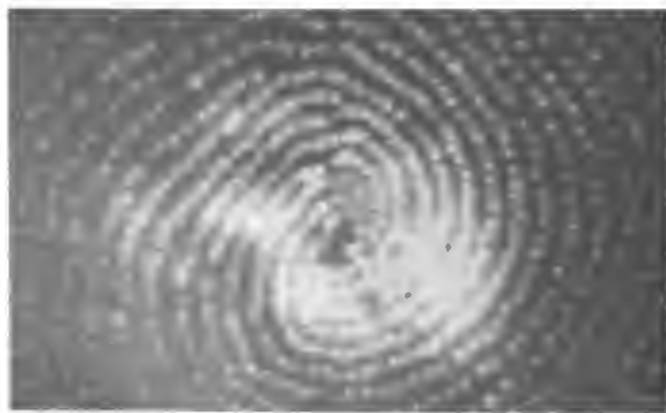
Throughout her illustrious career, Dr. Margulis has helped popularize science and champion

the environment. She has published extensively for audiences ranging from professional scientists to schoolchildren. She is also well known for her collaboration with James E. Lovelock on his Gaia hypothesis, which describes the Earth as a self-regulating system in which growing, metabolizing and reproducing life forms create environmental conditions that affect survival and even extinction of other life forms.

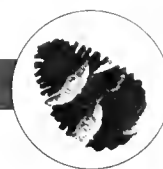
Dr. Margulis has received numerous distinguished fellowships and awards, including a National Medal of Science from President Clinton in 2000 and Sigma Xi's Proctor Prize in 1999. She is an elected member of the U.S. National Academy of Sciences and the Russian Academy of Natural Sciences.

As core supporters, The Founders' Council strengthens our dynamic agenda of scientific, education and exhibition programs. Council members contribute between \$1,500 and \$25,000 or more annually. Benefits include private exhibition openings, behind-the-scenes tours, exclusive educational events and special opportunities with distinguished scientists such as Dr. Jane E. Goodall. For information, call Kristen Jacobs at 312.665.7773.

This Metacoronymphanta senta organism from the hindgut of a termite from Trinidad is stained with DAPI, which binds to DNA. Each blue dot is a nucleus. It is a single cell with more than 1,000 nuclei.



© M. DOUGAN, UNIVERSITY OF MASSACHUSETTS DEPARTMENT OF GEOSCIENCES



R. K. LOESCH, WEXNER CENTER FOR THE ARTS

Informances: The Magic Behind Puppetry

See some of the theatrical artistry represented in *Julie Taymor: Playing with Fire* come to life.

The Chicago troupe Jabberwocky Marionettes will illustrate the creativity and technique behind shadow puppetry, marionettes and the ancient Japanese tradition of Bunraku puppetry.

July 1–Nov. 14
Saturdays and Sundays
11am–3pm

FREE with Museum admission

New Exhibition— Julie Taymor: Playing with Fire

June 14–Nov. 4, 2001

Extraordinary sets, masks and costumes will ignite your imagination.

After more than 25 years of making spectacular theatrical art, critically acclaimed designer and director Julie Taymor has received wide public recognition for her recent triumph on Broadway with Disney's *The Lion King* and the debut of her first feature film, *Titus*, starring Anthony Hopkins and Jessica Lange.

In this exciting exhibition, you'll see full-scale sets, puppets, masks, costumes, video clips and props that Taymor has used to create her larger-than-life worlds of spectacle and pageantry.

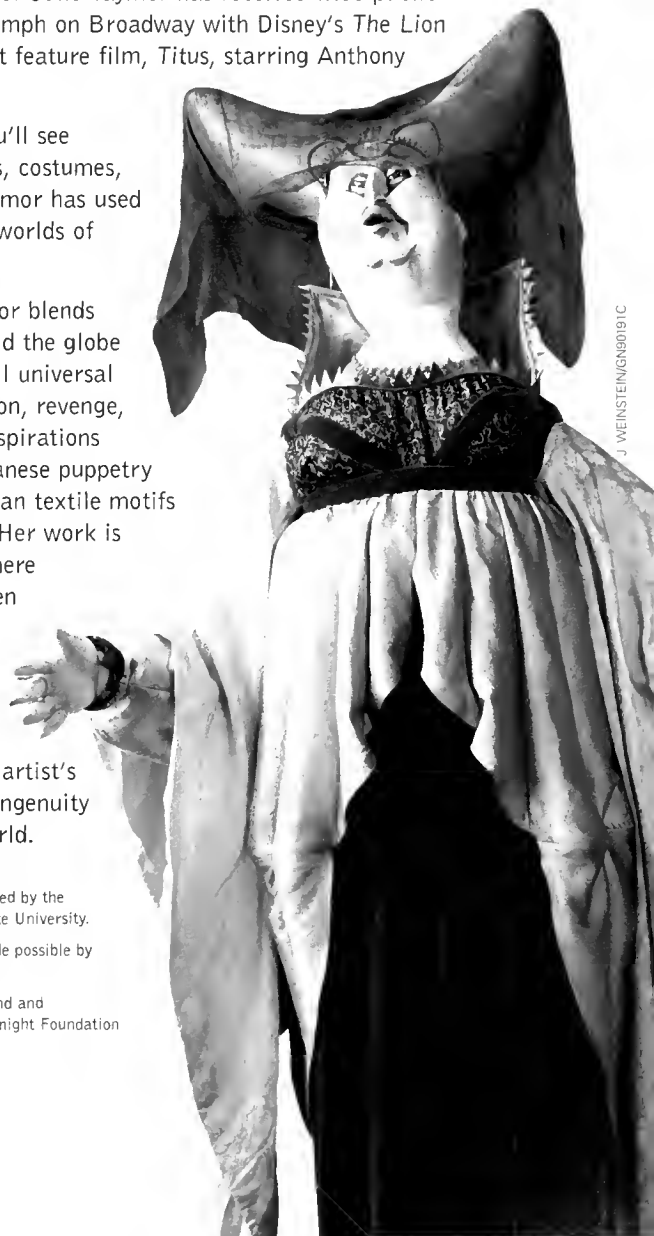
You'll also discover how Taymor blends cultural traditions from around the globe and across the centuries to tell universal stories of love, lust, compassion, revenge, cruelty and innocence. Her inspirations range from 18th century Japanese puppetry to Mexican muralism to African textile motifs to Shakespearean traditions. Her work is right at home at the Field, where you can draw parallels between her designs and objects in our Africa, China and many other cultural exhibitions.

Join us for an inspirational experience that celebrates an artist's vision and the creativity and ingenuity of cultures throughout the world.

Julie Taymor: Playing with Fire was organized by the Wexner Center for the Arts at The Ohio State University.

This exhibition and its national tour are made possible by Ford Motor Company.

Major support is also provided by Agnes Gund and Daniel Shapiro, the John S. and James L. Knight Foundation and PricewaterhouseCoopers.



J. WEINSTEIN/GN0191C

Create Your Own "Theme for a Day" at The Field Museum

Choose from more than 35 themes to create your own "Theme for a Day" at The Field Museum. You can choose from a variety of themes, including: Living Colors: A Butterfly Garden, Nature Walk, Underground Adventure, and Insects: 105 Years of Collecting. Or, you can create your own theme by combining two or more than 35 themes.



T. DACQUISTO

Nature Lover's Tour

For all ages

- 1 Start your day with Living Colors: A Butterfly Garden**, on the southeast terrace through Sept. 3. Step into a lush, enchanting world where 55 species of butterflies and moths swirl around you. Experience nature's fragile beauty up close as new butterflies emerge before your eyes. Stand very still... and maybe one will land on your nose! Families should look for hands-on butterfly activities throughout out the Museum (see Family Programs).
- 2 Continue on to Nature Walk** (Hall M-7W on the Museum's visitor map), where you'll find scenes of butterflies and other animals in their natural environments. Follow a trail through prairies, wetlands, woodlands and ocean shores.
- 3 Get a new perspective** on the insects and soil that support summer gardens in *Underground Adventure* (Hall G-3/4E). You'll shrink to the size of a bug and explore an immersive, interactive environment where everything is 100 times its normal size.
- 4 Finish off the day** in the Small Treasures Gallery (Hall G-4E) with *Insects: 105 Years of Collecting*. Enjoy spectacular insects and learn about what goes on behind the scenes at the Museum to develop the scientific collections that help us learn more about our natural world.

Living Colors: A Butterfly Garden is created by The Field Museum. Monsanto is the lead sponsor of *Underground Adventure*.



G. PAPADAKIS/GN890506

In Underground Adventure, see what life is like through the eyes of a bug!

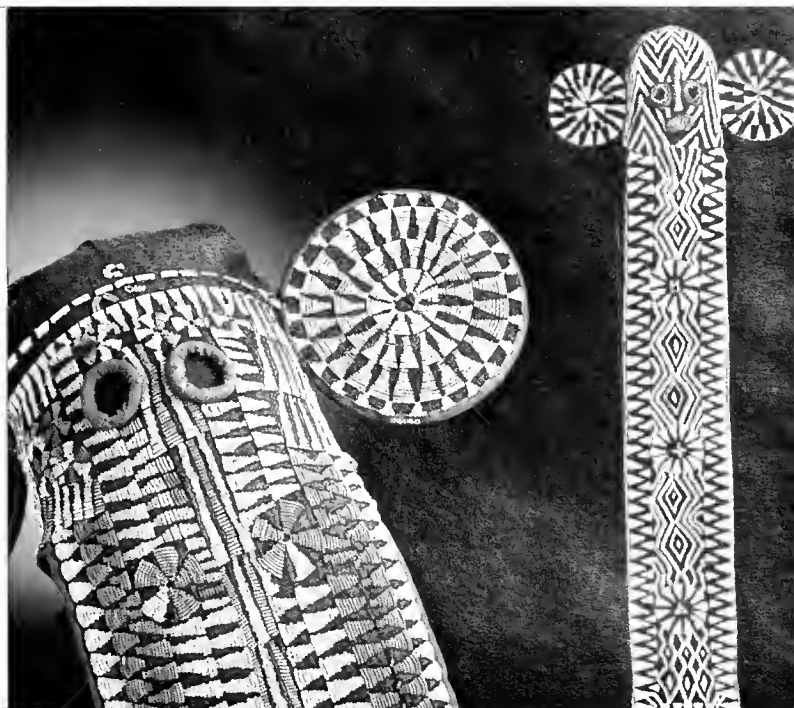


Masks of the World Tour

What can a mask tell us about the culture that created it? Find out when you explore the Museum's cultural exhibitions, focusing on the masks that you'll find along the way.

For all ages

- 1 Start near the totem poles** in the Northwest Coast exhibition (Hall M-3E on the Museum's visitor map). You'll find more than 200 masks in the nearby exhibition cases. What are they made of? What symbols do you see? What do you think the colors or expressions represent?
- 2 Now go to the Bamum Kingdom** in the first half of the Africa exhibition (Hall M-5W). Look for the beaded elephant masks. Why do you think people wore these masks?



- 3 Travel across the Pacific Ocean** to the *Pacific Spirits* exhibition (Hall U-6W). Examine the many masks around you. What is similar about them? What is different? Why do you think there are variations in these masks?
- 4 As your last stop**, visit *Julie Taymor: Playing with Fire* (specially ticketed exhibition) to see elements from many different cultures reflected in theatrical sets, masks, puppets and costumes. (This exhibition is recommended for adults and families with older children.)

J WEINSTEIN (LEFT AND ABOVE)/IGNATIUS

Final Weeks!

Kinetosaurs: Putting Some Teeth into Art and Science

Closes July 8, 2001

Hands-on fun brings dinosaurs to life. Set a T. rex and other life-size dinosaur sculptures into motion and learn how these creatures may have run, roared and fought. Visit *Kinetosaurs* on Saturdays and Sundays, from 10am–2pm, and enjoy additional gallery activities led by Museum staff.

Kinetosaurs is created by The Children's Museum of Indianapolis. Sculptures by John Payne of Payne Studios, Asheville, NC, 1998, 1999.

Wrapped in Pride: Ghanaian Kente and African American Identity

Closes July 15, 2001

Trace the origins of the kente cloth that is celebrated in Ghana. You'll discover how this colorful, bold fabric has become a powerful icon of African heritage for people throughout the world.

See the Family Programs listings for information about Kente Cultural Learning Stations.

This exhibition was organized by the UCLA Fowler Museum of Cultural History and the Newark Museum, Newark, NJ.

This exhibition and its national tour are made possible by Ford Motor Company. The exhibition has received funding from the National Endowment for the Humanities, dedicated to expanding American understanding of history and culture; the National Endowment for the Arts; and the Getty Grant Program for the publication.

Additional support for the Chicago presentation is provided by the Field Associates, the Elizabeth F. Cheney Foundation and Chicago Tribune.

Workshop

Connie Sulkin, Early Childhood Specialist

Join us for a two-week exploration of the Museum to learn about turtles, tortoises, caterpillars, moths and butterflies. Travel the Museum's exhibit halls and enjoy stories, songs, hands-on activities, an art project and a snack.

*Tuesdays, July 17 and 24
1:30–3pm*

\$24 per non-member child.

\$20 per member child.

For each child, one adult attends at no charge.

*This workshop is sponsored by
The Chicago Foundation for Early
Childhood Initiative.*



Thursday Night Mixers Outdoors at the Field

The Field Museum is the place to be on Thursday nights this summer! Join us on the Museum's north terrace for food, drink, gorgeous views of the city skyline and live music from Chicago's hottest bands.

Thursdays through Sept. 6, 7–9pm, \$10 per person

Advance tickets available through Ticketmaster at 312.902.1500 or www.ticketmaster.com. Day-of tickets available at entrance. Call 312.665.7600 for details.

Please note: This event is outdoors, rain or shine. The Museum's exhibitions will not be open for viewing.

held in partnership with WTMX Radio, 101.9, and Big Creek Productions.



Harmony Riley

Below is a calendar of the temporary exhibitions you will have an opportunity to visit in 2001. Some dates may change. Remember to call 312.922.9410 or visit our website for specific information.

**Kinetosaurs: Putting Some Teeth
into Art and Science**
Through July 8

**Wrapped in Pride: Ghanaian Kente
and African American Identity**
Through July 25

**Kachinas: Gifts from the
Spirit Messengers**
Through July 22

Gallery Performance

Teens Together Ensemble

Learn about the evolution of dinosaurs and the science of paleontology through dance and song.

Weekdays throughout July and August, 10:30am and 1pm
FREE with Museum admission

The following activities are free with Museum admission.

Weave a fun-foam cloth and find other hands-on learning activities when you visit the special exhibition *Wrapped in Pride* or the permanent exhibition *Africa*.

Saturdays and Sundays through July 15, 11am–3pm

Learn about butterflies and the places they call home through a variety of hands-on activities. Put together a butterfly puzzle, draw butterflies with chalk on the sidewalk and discover how you can grow your own butterfly garden.

Wednesdays, Saturdays and Sundays through Sept. 2
11am–3pm

Naturalist Certificate Program Celebrates 5th Anniversary

Deepen your knowledge about the natural environment and share this passion with others through the Naturalist Certificate Program (NCP)!

The Field partners with The Morton Arboretum, which originally developed the certificate, and the Chicago Botanic Garden to offer this series of field-oriented classes in ecology, botany, zoology, geology and interpretation. The Field joined this program in 1996, and more than 250 nature enthusiasts are currently enrolled to pursue a certificate.

"I started with a few courses, and before I knew it, I was taking all the courses I could," says Steven Thomas, a lawyer and avid camper who shares his enthusiasm and increased knowledge with his 8-year-old daughter and her classmates. "Chicago is a terrific place to study the environment because of its amazing biodiversity. Within a short drive, we have access to prairies, forests, wetlands, dunes, bogs and lakes."

LAKE MICHIGAN FEDERATION

In Her Hands: Craftswomen
Changing the World
Through October 28

Living Colors: A Butterfly Garden
Through September 3

Julie Taymor: Playing with Fire
Through November 4



Listen to a story, sing songs and make an art project to take home—all in just 20 minutes! One adult for every three children, please. Meets in the Living Together exhibition. For young children and their families.

1pm daily in July and August!

This program is sponsored by the Singapore Foundation Early Childhood Initiative.

Every weekend you'll find a selection of hands-on activities throughout the Museum. You may meet a soil scientist at work, see your name in Egyptian hieroglyphs or dissect an owl pellet.

Every Saturday and Sunday!

10am–noon and 1–3pm

Field Museum docents help bring history to life in this full-size replica of a traditional Pawnee lodge.

Daily! Saturdays and Sundays, 10am–4:30pm

Weekdays, 11am, 11:30am, 1pm and 1:30pm

Curious beginners to more experienced naturalists can enjoy NCP classes, which attract students from a variety of backgrounds for personal and professional development. Students can take just a few courses or earn a certificate by taking 13 to 15 courses.

Students can take courses at any of the three campuses, each of which offers a unique experience. At the Morton Arboretum and Chicago Botanic Gardens, courses highlight the natural landscapes available at those institutions. At the Field, courses draw on the Museum's exhibitions and vast scientific collections and take students to wilderness sites throughout Chicagoland for fieldwork.

July–August NCP Courses

Dr. Patrick Leacock, Department of Botany, The Field Museum

Learn the basic biology of fungi, their roles in the environment, characteristics of major groups and how to identify a mushroom genus.

Wednesdays, July 18 and 25, 7–9pm

Saturdays, July 21 and 28, 9am–1pm

\$130, members \$110



Call 312.665.7400 for information on the
Naturalist Certificate Program at the Field.



Jeneyenne Visions

August 2001

Sigmund Freud:
Conflict and Culture

October 3 through December 9

Cleopatra of Egypt:
From History to Myth

October 20, 2001 through
March 3, 2002

The following activities are free with Museum admission.

Hear the stories behind some of our exciting exhibitions on our daily Highlights Tours. On weekdays, also look for tours of *Inside Ancient Egypt* and *Northwest Coast Indians* and *Eskimos*.

Meet Field Museum scientists and see rarely displayed specimens from our collections.

Every second Saturday of the month, 11am–2pm

Bring your own materials and get tips from artists and scientific illustrators as they create artwork inspired by our exhibitions.

Every third Saturday of the month, noon–3pm

Sound and Light Show

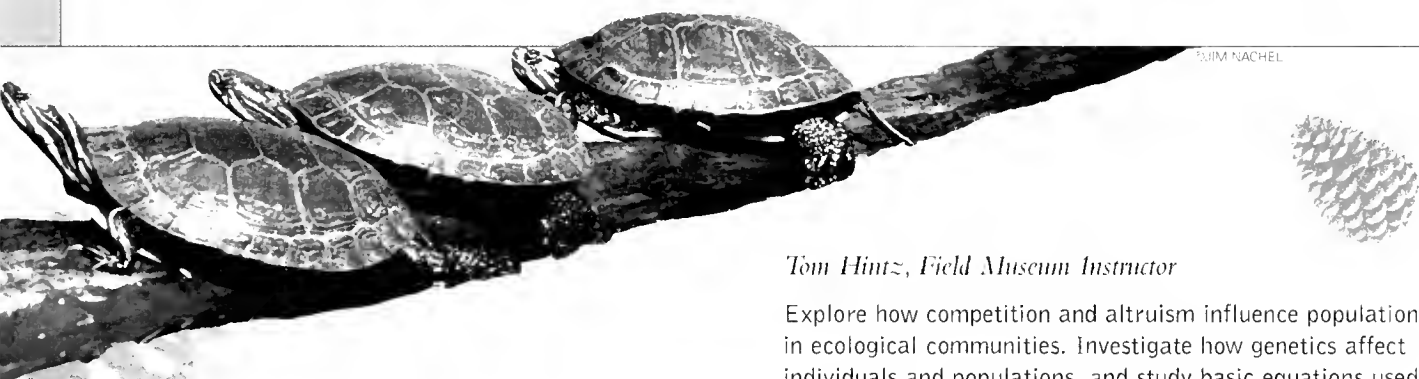
Watch Chicago's fascinating story take shape in a new outdoor sound and light show that features the words of poet Gwendolyn Brooks, columnist Mike Royko, novelist Mark Twain and other Chicago luminaries. Historical images will be projected onto the Museum as these legendary voices tell Chicago's story.

Most Thursdays, Fridays and Saturdays, June 28–Sept. 1

Presented on the Museum's north façade at dusk (approximately 8:30pm)

Call 312.665.7114 or visit www.fieldmuseum.org for information.

Chicago Pageant: A New Canvas is co-produced by the Chicago Historical Society, with cooperation from Steppenwolf Theatre, Goodman Theatre and CITY 2000.



WIM NACHEL

Christine Molzahn, Environmental and Conservation Programs, The Field Museum

Study the fundamental concepts of conservation biology. Examine how biodiversity relates to restoration ecology, habitat management, endangered species and captive breeding.

Wednesdays, Aug. 1–15, 6–9pm

Saturday, Aug. 11, 9am–noon

\$130, members \$110

Tom Hintz, Field Museum Instructor

Explore how competition and altruism influence populations in ecological communities. Investigate how genetics affect individuals and populations, and study basic equations used to determine the fitness of populations.

Tuesdays, Aug. 7–21, 7–9pm

Sundays, Aug. 12–19, 9am–noon

\$130, members \$110

For courses at The Morton Arboretum, call 630.719.2468.

For courses at the Chicago Botanic Garden, call 847.835.8261.



R. KAMMER

Get your Cleopatra of Egypt tickets now!

Scheming seductress or political mastermind? Don't miss this chance to unravel Cleopatra's mystery. This exclusive exhibition is appearing only in Rome, London and at The Field Museum.

Advance tickets on sale now. See Membership News on page 21 for details.

Program series beginning in October

Examine Freud's impact on the way we see our world through a series of adult programs accompanying the *Sigmund Freud: Conflict and Culture* exhibition, open Oct. 3 to Dec. 9. Hear prominent speakers from a variety of perspectives discuss contemporary views of neuroscience and the unconscious, the cultural impact of psychoanalysis in children's literature and other topics.

This series is being presented by The Field Museum in collaboration with the Humanities Laboratory at the University of Illinois, Chicago.

The Field Museum gratefully acknowledges the Freud Community Advisory Panel for its insight and assistance.

This exhibition is organized by the Library of Congress in cooperation with the Sigmund Freud-Museum in Vienna and the Freud Museum in London.



LIBRARY OF CONGRESS



THE FIELD MUSEUM

Thursday, Oct. 4

Share the excitement of a cutting-edge and controversial discovery that may forever change how we think about human ancestry and evolution. World-renowned paleoanthropologist Meave Leakey's discovery of a 3.5 million-year-old skull suggests that there may be another branch on the human family tree.

CLEOPATRA

Explore Cleopatra and Ancient Egypt

Program series beginning in October

Transport yourself to ancient Egypt through a series of lectures, films, behind-the-scenes tours, classes and other programs. The Field Museum and the Oriental Institute are collaborating on a series of programs to complement the *Cleopatra of Egypt: From History to Myth* exhibition at The Field Museum and the permanent collections at both institutions.

This exhibition has been organized by The British Museum in collaboration with The Fondazione Memmi, Rome.

International Sponsor BP
National Sponsor Exxon



VATICAN MUSEUMS, VATICAN CITY

Visitor Information



Hours: 9am–5pm daily. Closed Christmas and New Year's Day. We are open at 8am for extended summer hours through Sept. 3.

To get tickets: *Living Colors: A Butterfly Garden*, *Julie Taymor: Playing with Fire* and *Kinetosaurs: Putting Some Teeth into Art and Science* are all specially ticketed exhibitions.

Member passes can be reserved in advance by calling Ticketmaster at 312.902.1500 (service charges apply) or coming to the Membership Desk near the Museum's south entrance (no service charges). Non-member tickets can also be reserved in advance through Ticketmaster.

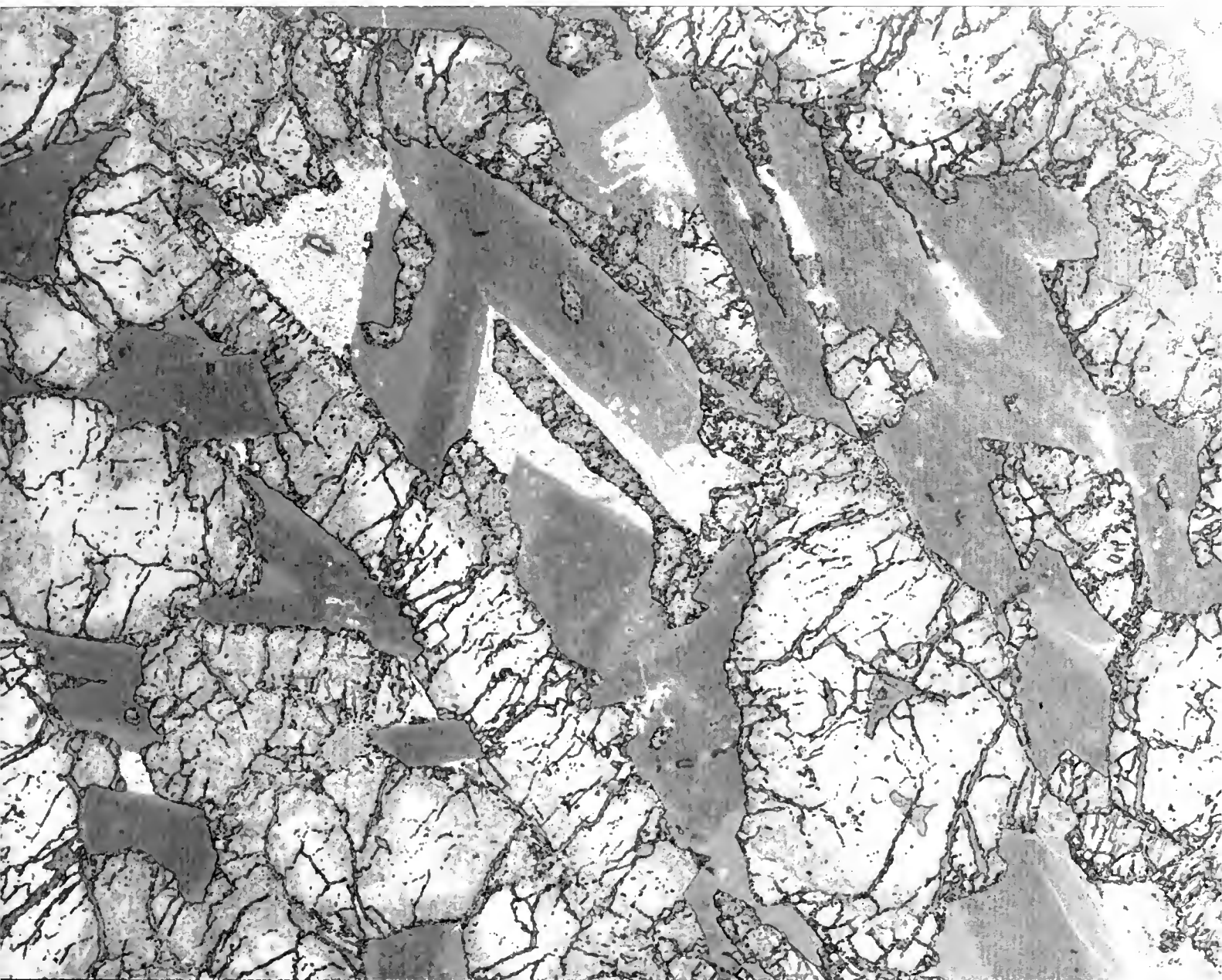
Day-of tickets are available at the Museum, while supplies last.

General Information: 312.922.9410 or www.fieldmuseum.org

Adult and Family Program Information: 312.665.7400



312.922.9410



Resembling a Jackson Pollock painting of rhythmic dribbles and smears, this is actually a scanning electron microscopic image of a thin section of Zagami, a Martian meteorite. It may indicate that water once resided on the red planet. New research by Meenakshi Wadhwa, associate curator of meteoritics, shows that the crust of Mars is moderately to heavily oxidized. Since water is the most common oxidizing agent in the Earth's crust, it is possible that water existed in the crust of Mars as well and caused it to become oxidized.

Wadhwa determined the oxidation condition of six Martian meteorites by analyzing minute amounts of europium—a rare earth element—in a mineral known as pyroxene, which makes up a large portion of these rocks. The pyroxenes (reddish orange grains) and plagioclase (blue grains) in this image are the most common minerals found in rocks formed by volcanic processes on Earth and Mars. These meteorites may have been formed in lava flows on the surface of Mars 180 to 474 million years ago ... hardly a "modern" creation.

A "Field" Safari



Lions balanced gracefully in the acacia tree branches.

Story and photos by Robin Colburn, Trustee

Many of us fantasize about visiting places far away and entirely foreign to our culture. When it gets down to it, few of us muster up the courage to wander beyond familiar surroundings—or at least familiar society. Field Museum Tours makes those somewhat intimidating adventures comfortable and secure—much like traveling with family. I have completed three trips with Field Museum staff: Kenya in 1997 with Bruce Patterson; an Amazon tributary with Barry Chernoff and Jennifer Wheeler in 1999; and Tanzania, the most recent trip, with Bill Stanley and Mary Anne Rogers. The Field Museum scientists offer an “inside track” to learning the dynamics of foreign ecosystems and the politics and social behavior of both the animals and people of the regions. They act as bridges between our existing world and perspectives and these new experiences. Here are some highlights from the journal I maintained during this most recent extraordinary trip.

Feast for the senses We arrived at the Arusha airport near Kilimanjaro in darkness and walked down the hard stand to the sizzling sounds of cicadas and an embracing warm breeze. The sensory experience of Arusha the next day—the pre-dawn call to prayer emanating from the nearby mosque; strolling women wrapped in intricately patterned kangas of teal, saffron and ruby; donkeys led along the roadside bearing goods; and the aroma of fires and roasting food—was extraordinarily stimulating. We were at last *in Africa*.

Arusha National Park Giraffes with a seemingly nonchalant bearing, well enough protected to hardly fear humans, greeted us near the park. Black and white colobus monkeys bantered about in the trees, while exotic butterflies decorated the park office steps. From an overlook of Ngurdoto Crater, a region off-limits to preserve its natural ecosystem, we were able to view the Cape buffalo below. Blue monkeys swung from trees, and snails the size of human fists dotted the hillsides.

Scene after scene unfolded with each bend in the road. A crowned crane, wearing a fuzzy golden crest evocative of a centurion's helmet, spread its wings broadly as if to invite our admiration. Cape buffalo—powerful and potentially dangerous animals—apparently did not frighten the warthogs grazing and romping amidst them, perhaps finding safe harbor from predators in their presence... A dikdik, a tiny antelope sporting diminutive, pointed horns, offered us a glimpse of his beauty before shyly disappearing with one leap into the grass. These small mammals rarely weigh more than four kilograms, nor exceed 50 centimeters in height; I amused myself with the thought of smuggling one home in my backpack.

One of the greatest sights of Tanzania—no, of *Africa*—soon came into clear view: Mount Kilimanjaro, a moving frame of clouds drifting by its snow-capped summit. This awe-inspiring landmark seemed the Mount Olympus of the gods of Africa....

Lake Manyara Early into the park, the palms, heat and humidity created a delicious sensation of tropical jungle. Some 50 baboons moved toward us as though operating a checkpoint, dividing and surrounding the vehicle. Young offspring rode their mothers' backs like jockeys perched upon their mounts. Some gathered insects from the brush, while others groomed themselves, ambivalent to our presence. Their humanlike antics could have captivated us for hours.



The earthy, rich scent of elephant dung intermittently greeted us. We paused at a small bridge, stirred by what many of us were witnessing for the first time—five elephants dousing themselves in the stream below. We watched, transfixed, until they climbed the sloped bank and disappeared into the woods.

We learned via the radio communications between guides that lions had been sighted. Deeper into the park we encountered several, perched in acacia trees, legs dangling lazily, their tails gently twitching. Occasionally, one would rise to study us with casual interest and then reposition itself on the thorny branch with exceptional grace and balance.

That night at the lodge my fellow traveler and I settled in poolside hoping to see bats feeding on insects over the water. Glowing eyes—not those of a bat—studied us from the far edge of the pool. It was a genet, a beautiful cat-like creature with a spotted body some 50 centimeters in length and a striped tail nearly as long. We filmed it transfixed as it devoured toads struggling to escape the pool. Waiting patiently as each amphibian approached the edge, it pounced and swallowed its prey with amazing speed, gracefully moving along the water's edge between strikes. Our ballerina left the stage too soon; the show concluded.

The Ngorongoro Conservation Area promised to be the most intense wildlife experience of the trip as the Ngorongoro Crater, more than 100 sq. miles in area, teems with the largest variety of animals concentrated in one place in eastern Africa.

Every turn introduced a new performance. A blue monkey lovingly embraced her youngster. A trail of safari ants sought its next encampment, towing termites from a recently raided nest. Vervets (small, long-tailed monkeys) fed in the grasses. They had a more delicate appearance than other monkey species we had seen, their black faces contrasting the white brows and cheeks.

Eating lunch at Ngoitokitok Spring requires great caution; in fact it is best done inside the vehicles since the black kites there are renowned for swooping down and snatching food from unsuspecting diners. The center stage of this lunch location was a pond populated by hippos. These marvelous creatures amused us as they bobbed up and down, snorting, grunting and splashing.

*Vervets amused us
with their deliberate,
busy behavior.*

Our first evening at the Ngorongoro Serena Lodge was an almost mystical experience. As the clouds lifted and swirled, shafts of light from the setting sun pierced their openings to allow teasing glimpses of the lakes below. This Shangri-La beckoned us to the rhinos and flamingos glowing twilight pink in the waters of its basin.

The next day in the crater, a dozen or so Maasai ostriches strutted about, their comically small heads topping long necks that swung with each stride. Thomson's gazelles appeared golden in the early light, and a golden jackal rolled on its back, gleefully relieving an itch.

We encountered two black rhinos, at close range, standing in a defensive pose. Though their mass and strength clearly gave them the upper hand, they nonetheless kept a wary, mindful eye on our vehicles. Scores of wildebeest dotted the landscape, some running in front of us, kicking exuberantly, grunting, galloping and tossing their heads defiantly.

Down the road, a Cape buffalo had succumbed to lions a few hours before. Two hyenas slinked away, apparently having feasted, and vultures now possessed the carcass. Three tawny eagles some 20 feet away awaited their turn as the vultures tore,

tugged and poked at the carrion with great enthusiasm—a gruesome, yet fascinating display of animal behavior. Occasionally one bird, seemingly envious of another's choice spot, aggressively seized the better position with hissing, biting and furious flapping of its massive wings.

We revisited these remains five hours later to discover that the carcass had diminished another 50 percent. The vultures had nearly hollowed out the buffalo; one could be seen through the gaps of the exposed ribs feeding upon the animal's interior. Although a morbid subject, it illustrates an important point: protecting a habitat like the Ngorongoro Crater allows the ecosystem to maintain a balance. Every living thing finds its niche; nothing is wasted.

The suspect predators slept soundly near the kill. Eight of these great cats slept by a puddle in a marshy area, their legs casually draped over one another. The lions were not the least bit wary of us, and I wondered if they fear anything at all. Their indifference was, in a way, humbling.

The lesser flamingo, whose intense color is enhanced by early morning and late afternoon light, moves in large populations, wading and feeding in the waters. Their soft echoing squawk has a near hypnotic effect. Greater flamingos, which are much taller and paler, seemed like punctuation marks appearing among the lesser species. These birds extended and contracted their necks into flexing "s" shapes with grace and elegance. The sunlight sparkling on windswept water, the motion of birds as they waded and fed, the occasional extension of wings exposing the solid black undersides and the soft chorus of sound emanating from the numerous species of waterfowl was poetic.

The entire crater experienced a population explosion of moth larvae called "army worms." Millions of them adhered to the grasses; many crossed the roads en masse, even creeping over a snake sunning itself in the road. To see a few caterpillars would have been interesting, but the enormous number seemed grotesque. But again, nothing here is wasted; a golden jackal snapped up these creatures with gusto.

At first glance, and even second, one would suspect nothing in the high grasses, but up popped a head—bearing the dazzling face of a cheetah, the illusion of black tears streaming from its eyes. Panting in the heat, it quickly surveyed its surroundings, and then dropped to the ground as though collapsing. Another rose, walked a few steps and then "tumbled" as well. A backdrop to this display, the wildebeest migration continued, unaware of the predators concealed in the tall

The agama lizard's flamboyant coloring is evocative of a rubber toy.



grass nearby. Yet another head emerged, then dropped ... returning to slumber, I supposed...

The Olduvai Gorge where Mary Leakey discovered the earliest known hominid skull at the time (1959), is the site of ongoing research to this day, well worth a visit. A marker indicates the exact location where Mary spotted the famous skull while walking her dogs. A monument commemorating this discovery stands near the marker and is adorned with a number of fossils found by visiting tourists, an ongoing tradition.

We drove onward to an amazing natural phenomenon—the Shifting Sands. Long ago, a volcano spewed fine debris that was shaped by constant winds of the open plain into the form of a crescent. Over time the wind has picked up sand from the windward side and deposited it on the leeward side, moving consistently toward the Serengeti. Markers denoting the progress of the dune over the years span a remarkable distance backward from its present location.

The Serengeti, with a staggering wildlife population, is the largest park in Tanzania. One of the greatest moments for us in this park was our first leopard sighting. Although the distance between it and us was substantial, we were able to distinguish a stunning leopard resting in a tree. While the bright sky reduced our view, its silhouette was elegant. Later that afternoon, we visited another leopard in much closer proximity, grooming and occasionally returning our gaze.

Agama lizards frequent the picnic area of the Serengeti Visitor Center. Warming themselves on sunlit stones, they bob up and down, occasionally startling their observer with the sudden snatching of a fly on the wing. With upper torsos of intense pink and the lower portions and tails cerulean blue, they resemble rubber toys more vividly colored than any butterfly or tropical fish I have seen.

Throughout the game parks, Kori bustards, nearly three feet tall, “strut their stuff” in a provocative mating display. They flip their tails over their backs toward their long, thick necks and expose a predominantly white, feather duster-like underside. Prancing about in large steps, they inflate their swinging necks, echoing the effect of the white tail.

Nearing the camp, we came upon a steinbuck resting at the fork in the road. While some animals rely upon their speed and agility to escape a predator’s grasp, the steinbuck remains very still to evade the eye of the predator.

The Serengeti dusk and dawn bring with them a glorious chorus. Hyenas chuckle in the distance as birds add their calls, songs and occasional alarms. Insects and amphibians call to one another. It is a



symphony well orchestrated by Mother Nature, and the stage of wilderness allows for an uninterrupted performance. Nothing can compare to hearing nature’s music devoid of the sounds of mankind and its machines.

The aromas of rain-moistened earth, animals, dung and wet vegetation fill the air with a greater perfume than any of man’s creation. Stars emerging undimmed by city lights, bats dipping and weaving through the air as dusk deepens to darkness and moths with glowing eyes hovering around the campfire—all are wondrous marvels of nature.

A trip like this is not for everyone, I know, but visiting one of the greatest natural, virtually undisturbed corners of the world is a rejuvenating, revitalizing experience. It is an opportunity to learn about the real world—that which nature designed so well—and an opportunity to grasp the importance of protecting what we can while we can. **ITF**

A dainty dikdik turns toward us before vanishing into the grass.

Upcoming trips include Egypt, New Zealand, the Amazon, an around-the-world journey by private jet and Tanzania. For information, see the back cover, call Field Museum Tours at 800.811.7244 or email fntours@sover.net.

The Women Who Watch Over Us

Kristin VanHenkelem, Volunteer

So quiet that one might not notice them at first glance, four regal women stand motionless in the upper corners of Stanley Field Hall. They have been there since World War I, nobly representing the activities that take place within the walls of this impressive neoclassical building. "Record," "Research," "Science" and "Dissemination of Knowledge" were created by New York sculptor Henry Hering (1874-1949) as part of his 1916 contract to do the statuary and other decorative work for the new Museum building.

"Record," clutching her quill and tablet, stands in the southeast corner across from "Research," who peers into her magnifying glass. In the northeast, "Dissemination of Knowledge" shows her baby the

contents of a book, and in the northwest, "Science" wears a crown of laurels and holds two objects: a scroll in her right hand and—in a Hamlet-like stance—a human skull in her left.

Although his mentor was the prolific Augustus Saint-Gaudens (1848-1907), Hering was perhaps the least recognized among the candidates being considered for the work. Today, however, Hering's work can be found in such Chicago landmarks as Union Station, the Civic Opera House, the Michigan Avenue Bridge and the Federal Reserve Bank Building. Although it is credited to Saint-Gaudens, the Lincoln figure in Grant Park was also largely Hering's work, along with the design of \$10- and \$20-gold pieces minted between 1907 and 1933. His art can also be found in Yale University, Indianapolis and Cleveland.

For the Field alone, Hering sculpted eight eleven-foot, five-ton caryatids (female statue-pillars); four bas-relief panels representing geology, botany, zoology and anthropology; and the lion medallions on the upper side walls of Stanley Field Hall. Hering also designed four statues representing the cardinal directions and four statues representing earth, water, fire and air, which never made it to the Field. Curiously, duplicate sets of the direction statues found their way to the Museum of Science and Industry entrances.

Hering sent photographs of his work in 1917 to Field Museum architect Peirce Anderson, who responded: "Your caryatids are perfectly bully, and I congratulate you very heartily on the outcome of these ... The handling of the drapery and other details is certainly a joy to the eye." On the back of another enthusiastic letter from Anderson, Stanley Field himself penciled in his agreement: "The first four figures of the main pediment ... meet with my entire approval. I am ... delighted with them."

Hering made the front page of the *New York Times* years after his involvement at the Museum, but not for his art. In 1945 he returned home from a golf course to find the wreckage of a U.S. Army bomber in his penthouse studio. Lost in the fog, the plane had crashed into the Empire State Building, careening debris into nearby buildings. Hering, whose interest in golf had expanded to designing experimental clubs, was more concerned about the safety of those clubs than his artwork. Fortunately his sculptures, especially the graceful muses of Stanley Field Hall, continue to delight and captivate visitors to this day.

The muse of research in Stanley Field Hall is enfolded within layers of sweeping arches.



THE FIELD MUSEUM/IGN79869

Free Member Passes for Julie Taymor

Extraordinary sets, masks and costumes by an award-winning director will ignite your imagination in *Julie Taymor: Playing with Fire*, open June 14 through Nov. 4, 2001. Family members can receive up to four passes for this special exhibition, and senior, student, individual and national affiliate members can receive up to two passes. To obtain your passes, call Ticketmaster at 312.902.1500 (fees will be assessed), or visit the membership desk for future or same-day tickets (no additional fees). Viewing dates and times are available on a first-come, first-served basis. For information, call the membership office at 312.665.7700.

Save the Date

Cleopatra of Egypt, open Oct. 20, 2001, through March 3, 2002, promises to be an extraordinary experience with more than 350 priceless artifacts and artworks to explore the life, liaisons and legend of Egypt's tragic queen. This exclusive exhibition will appear only in Rome, London and at The Field Museum. **Members-only viewing dates are Oct. 21, 24, 26 and 28. Details to come in the mail.**

Or, get additional Cleopatra tickets now!

If you plan to see *Cleopatra* beyond the members-only viewing, member passes and advance tickets are now available.

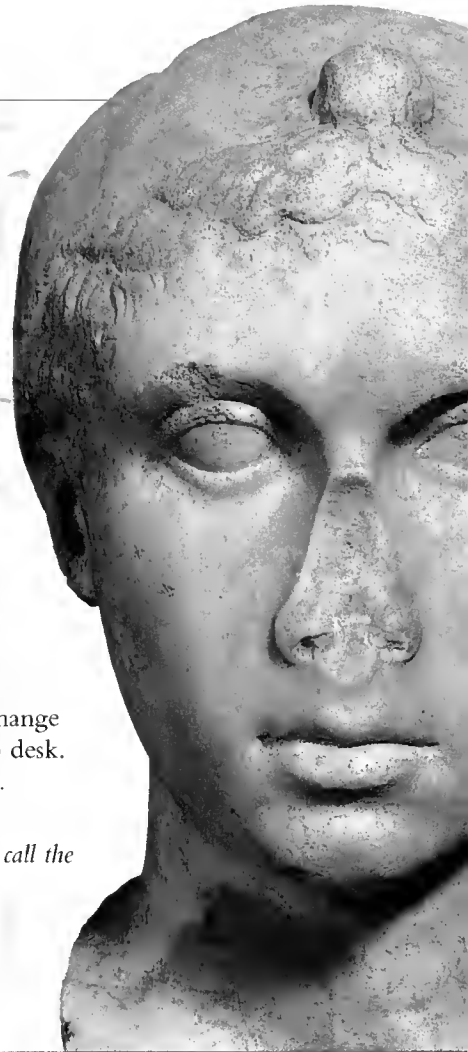
Benefits: Family members can receive four passes, and senior, student, individual and national affiliate members can receive two passes.

Purchasing Additional Tickets: *Cleopatra* tickets for an additional member in your household are \$10 each. *Cleopatra* tickets for a non-member guest are \$10 each plus general admission. The Museum offers discount combination tickets that include basic admission, with greater discounts for children, seniors and students.

Ordering Tickets: To guarantee entry at the time of your choice, reserve your tickets through Ticketmaster at 312.902.1500 (fees will be assessed), or visit the membership desk (no additional fees). Tickets are available on a first-come, first-served basis for same-day viewing or future dates.

Exchanging Tickets: Members may exchange tickets for a future date at the membership desk. No refunds are available for unused tickets.

For information, visit www.fieldmuseum.org, or call the membership office at 312.665.7700.



Another Memorable Members' Night

Thank you to the staff who worked hard to prepare their activities and the members who brought their family and friends to Members' Nights. We appreciate everyone's enthusiasm and involvement in creating another unforgettable experience. Here's what one member wrote:

I'm not sure who had the better time: my four-year-old grandson who got to hold a snake; my 22-year-old son who got a "private" lecture in the Egypt exhibition; my husband, who had all his questions answered by the Sue staff; or me! Our entire family wants to say, "Thank you very much!" —Chestine Puralewski



© JEFFREY M. HARRIS

Oct. 14–28, 2001 (15 days)

Explore spectacular archaeological sites and monuments not seen on your first trip. (First-time visitors should see Egyptian Odyssey below.) Highlights feature Abusir, Dashur, Maidum, Faiyum, Tanis, Abydos, Dendara, dawn at Abu Simbel and three nights cruising Lake Nasser, plus lesser-known sites in Cairo, Luxor and Aswan.

Leader: Frank Yurco, Egyptologist
Price: \$4,325, not including airfare

Oct. 27–Nov. 14, 2001 (19 days)

New Zealand's diversity will astound you. On North Island visit Goat Island Marine Reserve, Tongariro National Park, the New Zealand Maori Arts and Crafts Institute, Tokomaru Bay, Gisborne and Wellington's Museum of New Zealand and Botanic Gardens. On South Island tour Christchurch's Canterbury Museum, Dunedin, Queenstown and Milford Sound.

Leaders: John Tenell, anthropologist, and Scott Lidgard, geologist
Price: \$5,895, not including airfare (estimated \$1,995 from Chicago)

Oct. 28–Nov. 11, 2001, or Jan. 27–Feb. 10, 2002 (15 days)

Explore the world of ancient pharaohs by land and riverboat. Visit the famed pyramids of Giza, The Egyptian Museum, the Valleys of the Kings and Queens, Karnak, the temples of Khnum, Horus and Isis, and Abu Simbel's three colossi of Ramses II. Enjoy five-star accommodations throughout.

Leaders: Egyptologists Thomas Mudloff (Oct.) and Frank Yurco (Jan.)
Price: \$4,325, not including airfare (estimated \$945 return from NY)

Dec. 1–9, 2001 (9 days)

Explore the Amazon, Ucayali and Tapiche Rivers in Peru for eight days aboard a 14-cabin riverboat. Search for river dolphins; howler, squirrel and capuchin monkeys; sloths; and capybaras, plus unusual birds such as the jabiru and hoatzin. Optional extension to Machu Picchu, the magnificent archaeological sites around Cuzco.

Leader: William Burger, botanist
Price: \$3,890, including round-trip airfare from Miami

Jan. 20–Feb. 13 or Feb. 14–March 10, 2002 (25 days)

Embark on a once-in-a-lifetime journey to the world's most remote habitats: the vast flora and fauna of the Amazon; volcanic Canary Islands; great apes of Borneo; annual migration in Tanzania; wildlife of Nepal; rare species of the Galapagos; undersea life of the Great Barrier Reef; moai of Easter Island; tribal cultures of Papua New Guinea; the Seychelles; and Samoa.

Leader: Social scientist Michael Shermer (Jan.) and Wayne Ramsey (Feb.)
Price: \$36,950, including airfare from Miami and return to Washington, D.C., on a first class, 88-seat private jet

Feb. 1–14, 2002 (waitlisted), or Feb. 19–March 4, 2002 (14 days)

Travel at the best time of year to see the spectacular herds of the Serengeti Plains. Hundreds of thousands of wildebeest and tens of thousands of zebras and antelope amass in this area each year, attended by lions, cheetahs, hyenas and other predators. Enjoy four days in the Serengeti, then three days at Ngorongoro Crater, Zanzibar extension.

Leader: Zoologists Bill Stanley and Mary Anne Rogers (first trip) and David Willard (second trip)
Price: \$6,245, not including airfare

March 29–April 7, 2002 (10 days)

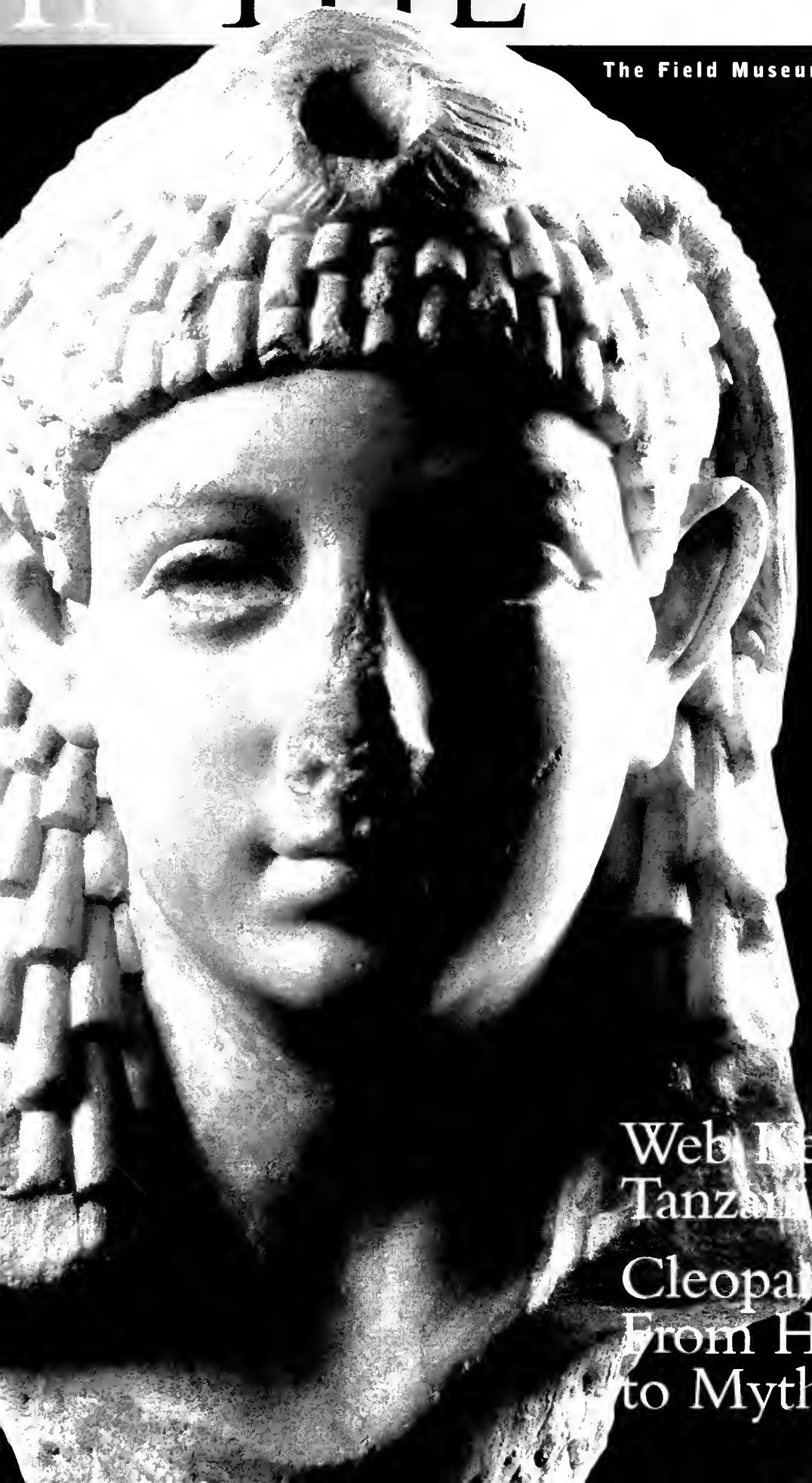
Enjoy a perfect combination of Mayan sites, rainforests, wildlife and the Caribbean. Visit the pyramid of Lamanai, panoramic Nunantunich and the spectacular Tikal. Observe howler and spider monkeys, coatimundi, peccary and hundreds of bird species, and snorkel along the Barrier Reef at Hol Chan Marine Reserve.



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IN THE

The Field Museum's Member Publication



Web Key Identifies
Tanzanian Mammals

Cleopatra of Egypt:
From History
to Myth

Museum Welcomes New Vice President of Academic Affairs

Dr. Robert D. Martin starts this September as the new vice president for academic affairs. Trained at Worcester College, Oxford, England, he has spent most of his career in biological anthropology and has strong interests in paleontology and conservation. For the past 15 years he directed the University of Zürich's Anthropological Institute and Museum. Having published more than 200 articles, books and translations, Dr. Martin is one of the world's leading figures in primate biology and the origin of humans. Among his numerous scientific honors is election as a fellow to the UK Institute of Biology and the Zoological Society of London.

ITF: What sparked your interest in primates?

RM: The interplay of chance and opportunity. From Oxford, I went to Germany to study tree shrew behavior as a model for the beginnings of primate evolution. Tree shrews were then thought to be the most primitive living primates, but I discovered



that the mother leaves her infants in a separate nest and suckles them only once every two days. Since primates excel in parental care, I began to question the link between tree shrews and primates. My Ph.D. thesis turned into a complete re-examination of early primate origins. The crucial importance of museum collections became obvious, and I became deeply involved in the methods used to work out evolutionary relationships.

Later, in seeking a good home for a cherished pair of hand-reared tree shrews, I began a long-standing relationship with the Jersey Wildlife Preservation Trust (JWPT). In 1975, I edited the proceedings for the first international conference on breeding endangered species in captivity and subsequently played an advisory role at JWPT for 25 years. This connection fostered my interests in conservation.

ITF: Tell us about your subsequent work.

RM: As a postdoctoral student in France — where the biggest bonus was meeting my wife, Anne-Elise — I switched to real primates and chose the relatively primitive lesser mouse lemurs. I visited Madagascar in 1968 to collect the first detailed data on their behavior and ecology and was also exposed to the realities of conservation problems, particularly deforestation. Once again, museum collections proved to be vital. At that time, only a single lesser mouse lemur species was recognized for Madagascar, but I identified a clear division between two main species. Now at least eight can be recognized.

I then became a lecturer on primate evolution at University College London (UCL). In 1974, I moved to the Zoological Society of London to direct research on reproduction, primarily of New World monkeys, and in 1975, I was a visiting professor at Yale University. A few years later I moved back to UCL to become first reader and then professor in biological anthropology. I also co-organized an international conference, which led directly to the pioneering

Prosimian Biology (1974) and later to *The Study of Prosimian Behavior* (1979). I continued fieldwork in Madagascar, South Africa, Panama and Brazil, with growing concern for conservation problems.

ITF: How did your focus shift to early humans?

RM: In 1986, I moved to the University of Zürich to direct the Anthropological Institute and Museum. Following my aim to "climb up the primate tree," I focused on Old World monkeys, apes and humans. This was partly spurred by hands-on experience with museum exhibitions. I also launched collaborative research on computer-assisted paleoanthropology, using a new system that begins with CAT scans of fossils at a local hospital, progresses to 3-D imaging and reconstruction and ends with actual replication of reconstructions using stereolithography. We applied this first to Neanderthals, so I had finally reached the top of the primate tree! I also developed a joint investigation of the effects of population fragmentation in the Barbary macaque as a model for primate conservation genetics. In between, I completed the textbook *Primate Origins and Evolution* (1990), widely used in courses on biological anthropology and primatology and as a reference source for research. This was followed by the award-winning *Cambridge Encyclopedia of Human Evolution* (1992).

ITF: What is your vision for academic affairs?

RM: Individual meetings with almost every curator revealed a stunning level of achievement in all areas, ranging from exceptional success in obtaining grants to publishing in the best journals. My top two priorities will be to provide the proper infrastructure and encouragement for optimizing research and to work toward improved public appreciation of the Museum's collections and associated scientific achievements.

I shall seek new ways to use the Museum's vast collections. A unified computer catalogue is needed, and new techniques such as 3-D visualization and analysis and comparative DNA studies can be explored for specimen research. The Pritzker Laboratory for Molecular Systematics and Evolution has been amazingly successful and cost-effective; one challenge is expanding it without endangering its incredible vitality. A rolling program of expert evaluations, essential for strategic planning and maintaining excellence, will also be established.

I will also promote strong university connections. Nearly every curator is linked with a local university, so it is simply necessary to maximize use of the Museum's facilities for student research projects and teaching.

What do you think about In the Field?

Please call 312.665.7115, email acranch@fmnh.org or write Amy E. Cranch, publications manager, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496.

INTHEFIELD INSIDE

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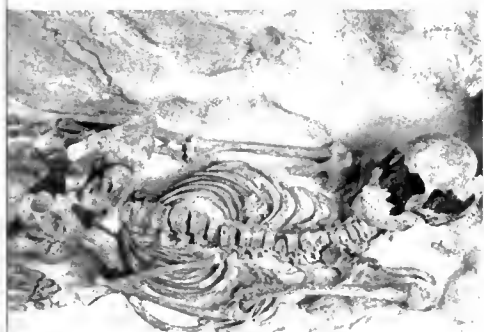
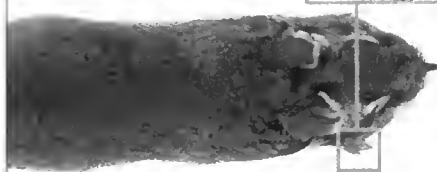
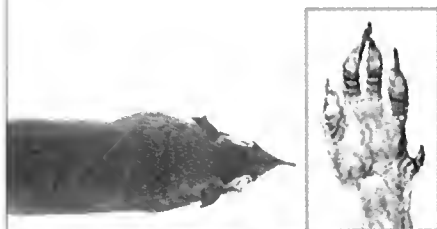
The cover image highlights *Cleopatra of Egypt: From History to Myth*, opening Oct. 20. Ptolemaic queen with vulture headdress, first century B.C., courtesy Musei Capitolini, Rome. Round-topped limestone stela with Ptolemy VIII before Egyptian deities, c. 142–116 B.C., courtesy The British Museum.

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The Field Museum

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www.fieldmuseum.org



2

A new web key is the first of its kind to help researchers identify Tanzanian mammals.

Left: Macroselididae, four-toed, long-eared elephant shrew

4

The Museum replicates an Ice Age skeleton to send back to its discovery site in France.

Left, middle: Magdalenian Girl

15

Zero in on an exquisitely detailed Burmese lacquer feast bowl in Scientist's Pick.

16

Scientists and volunteers brave darkness and gooey mud to hunt for snakes in Singapore.

Left: Cerberus rynchops, dog-faced water snake

21

Membership News gives details on *Cleopatra* previews, tickets and downtown hotel deals.

Museum Campus Neighbors

Shedd Aquarium The Oceanarium Turns 10 celebration continues as the Aquarium commemorates its 20 millionth visitor to the Oceanarium in October. The lucky guest will receive special prizes to mark the event. Scheduled activities include *Stunning Seal* in September and a *Penguin Party* in October, as well as the new marine mammal presentation that launched in April. Don't miss out on special opportunities to learn more about the animals all year long. For more details about Oceanarium Turns 10 activities or to plan an Aquarium visit, call 312.939.2438, or visit www.sheddaquarium.org.

Adler Planetarium Don't miss *Solar Storms*, the Adler's new sky show premiering Sept. 14, 2001, in the StarRider™ Theater. The sun's far-reaching influence has continued for more than four billion years. In this dramatic presentation, visitors will travel to our nearest star, plunge deep into a sunspot and then emerge to experience the power of solar flares. Discover the sun's surprising effect on our daily lives—from the awesome beauty of the Northern Lights to electrical power grid blackouts and interruptions of satellite-based communications. For information, visit www.adlerplanetarium.org, or call 312.922.STAR.

Web-based Key Helps Researchers Identify Tanzanian Mammals

Greg Borzo, Media Manager, Academic Affairs

Odd toe hooved mammals, Perrisod, rhinoceros (top) and zebra (bottom)

With more than 21 million items, The Field Museum's collection of artifacts and specimens is an ideal place to identify various faunas from many countries or regions. The challenge is finding ways to give researchers worldwide access to the collection.



B. STANLEY



R. BANASIAK, B. STANLEY

To meet this challenge, William Stanley, collection manager of mammals, has organized images and descriptions of the skulls and skins of mammals found in Tanzania on a website—in English and Kiswahili. Although the tool was designed primarily for natural resource managers and biologists at Tanzanian universities, Stanley hopes that most people with an interest in mammals at any level will find it fascinating, if not useful. “Scientists, students and educators—anyone, in fact—can reach through the web, open a drawer at the Field and study what they find there,” he said.

How the key works

The site, which launched this past summer, is not just a list. Rather, it is structured as a taxonomic key to identify adult mammals. By answering a series of either-or questions, someone with a skull or skin specimen in hand can narrow down the possibilities until he or she identifies the specimen. Photographs and drawings accompany the questions to illustrate the difference between the two choices presented.

As the website visitor, you must choose, for example, whether or not the skull has teeth. Your selection automatically takes you to the next choice—such as wings versus legs or fins, hair versus scales or a trunk versus a nose that is not elongated—ultimately leading you to the genus identification. It is important to remember that the illustrations serve as a reference only and may not exactly match the specimen you have in your hands, just as all humans have teeth but not everyone's are identical. Also, your specimen must match all the criteria listed, so even if only one out of five characteristics does not match, then you must choose the alternate description.

First of its kind

This easy-to-use tool is the first web-based key of Tanzanian mammals. It relies on feedback from users in Tanzania both for alternative and better ways to phrase the Kiswahili and for ease of use with the pictures. In addition, using images to distinguish animals differs from the traditional textbook approach, which applies written descriptions for identification. Finally, it is easier to update a web-based guide with new findings than to update

a textbook. In Tanzania, as in other countries, new records of known species are being documented all the time, and new species are still being discovered. The Field Museum does not have a complete set of skulls or skins for all Tanzanian mammals, so Stanley rounded out the set by photographing specimens at the Brookfield Zoo and Smithsonian Institution and soliciting students at the Art Institute of Chicago to draw whales. It is possible that a specimen not available on the key will eventually be added.

Giving back to the world

The new key identifies about 170 mammals to the level of genus, and Stanley plans to extend that to the level of species. "If this model works, it could be a good way to increase access to—and the usefulness of—our collections of plants and animals from other countries," he said. "This is a good way for us to give something back to the world."

Stanley focused on Tanzania because he has been studying there for years. The country is rich in biodiversity, especially the Eastern Arc Mountains (EAM). Formed millions of years ago, these mountains—sometimes called the "Galapagos Islands of Africa"—contain some of the most biologically diverse and endemically rich montane ecosystems in all of Africa.

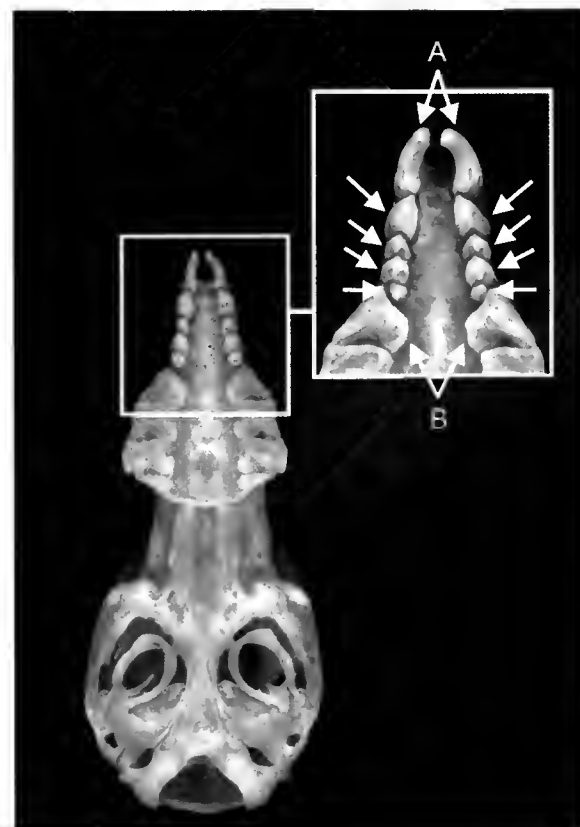
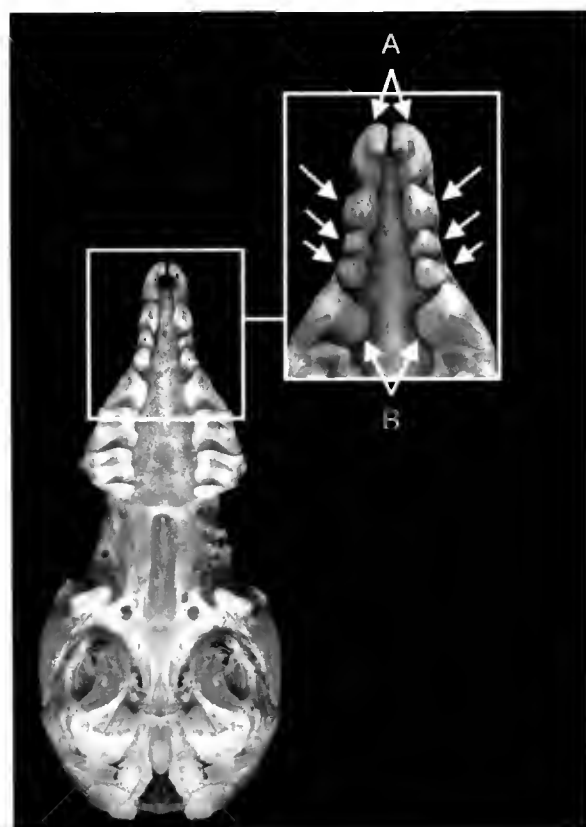
For the past ten years, The Field Museum and the University of Dar es Salaam have investigated the ecology and distribution of EAM small mammals, particularly shrews, bats and rodents. These surveys and associated specimen-based research have yielded several new discoveries and an expanded knowledge of the natural history of the group.

While the shrew fauna appears to contain the greatest number of endemic species, the rodents also show interesting patterns. Certain rodent species are broadly distributed across the archipelago but are not found at lower elevations. The small mammals from each mountain group may offer clues on the uniqueness of the Eastern Arc and the most effective way to conserve the habitat. Throughout the world, scientists have only identified a small percentage of all species that are thought to exist. It is vitally important to identify and classify all plants and animals to improve our understanding of life on Earth, especially since many species are threatened with extinction.

This project is one of the first steps in creating a new generation of tools that will help researchers—even those with little training—identify local fauna, Stanley said. "One of the main goals is to get Tanzanian students interested in mammals and hook future scientists. We have already received one suggestion to list the different genera so that teachers could go directly to aardvarks, for example, and show their students what an aardvark looks like."

Many excellent publications were consulted in preparing these keys, which were developed in collaboration with the University of Dar es Salaam in Tanzania with support from the MacArthur Foundation. Since internet access in Tanzania is limited, The Field Museum plans to supplement the web-based key with a compact disk. **ITF**

To use the key, visit www.fieldmuseum.org/tanzania. At press time, Stanley was in Tanzania continuing his EAM survey and refining the new key.



Soricidae, musk shrew (left) and shrew (right)

R. BANASIAK, P. LAI

The Making of a Human: Molding and Casting Magdalenian Girl

Amy E. Cranch, Editor

All photos by John Weinstein

This past summer The Field Museum completed a cast of Magdalenian Girl that was installed at the site of her discovery in the Dordogne Valley of France in July. What drew me to this story was not only exploring why the Museum did this or the process of molding and casting a skeleton. Like many of us who work here or visit the Museum, I was also drawn to the human aspect. From the mundane to the esoteric, I wondered what she looked like, how she filled her days, what her relationship was to her natural world, whether a child had passed through her body. ... Beyond the reflection is a fascinating historical look at how The Field Museum acquired this venerated Ice Age skeleton, how we have made it available for additional research and display and how this process has enhanced the Museum's knowledge and experience.



GN91036 6C

Stephen Lalik, an exhibits department preparator, applies Japanese tissue to an arm bone.

How Magdalenian Girl came to Chicago

Beloved in the world of prehistory, the rock shelter of Cap Blanc, discovered in 1909, contains one of the most powerful remaining friezes of the Ice Ages. Reindeer, horses, bison and other animals roam the walls, and a fine collection of stone and bone tools was unearthed. But excitement over these finds precluded further investigation, and when a protective enclosure was being built in 1911, a worker's pickaxe accidentally struck a human skull. Placed near the big horse frieze, the

skeleton was on its side in a fetal position with stones positioned at its head and feet. A full anatomical study conducted in the early 1930s debunked speculation that it was a man and concluded that it was a young female of about 20 years. Not only is it one of the most intact skeletons of the age, but also one of the few found close to a frieze, indicating a connection to the site or a person of high standing.

The original Field Museum display said a small ivory point found above the abdominal cavity may

have caused her death. Henry Field's 1955 memoirs posed other romantic speculations: "This weapon may have caused blood poisoning. ... Was she killed by her lover ... another Cro-Magnon girl ... in battle? Was she the daughter of the sculptor-high priest?" During that time period, interestingly, ivory was uncommon in France, and there is little evidence of human-to-human violence. However, while the first official report omits discussion of the ivory point, the excavators' original correspondence confirms that there was one, shedding light onto how she might have died.

The pre-historians who had extracted the skeleton had trouble selling it in Paris, and it was eventually returned to J. Grimaud, the site's owner. Nine years passed before he attempted to sell it again, negotiating first with the American Museum of Natural History in New York. With a high price of \$12,000 and an absence of associated archaeological materials, the American Museum declined. Harvard University's Peabody Museum also declined, at which point Grimaud's lawyers persuaded him to drop the price to \$3,000. While the American Museum's interest piqued again, it stuck with its original decision to decline. In 1926, Henry Field stepped in and closed the deal—for \$1,000. He wrote in his memoir, "I hurried to New York and ... packed her very carefully in cotton wool and carried her in a suitcase to a compartment on the Twentieth Century (train). We had a very uneventful night together."

Touted in the media as "the only prehistoric skeleton in the United States," Magdalenian Girl received 22,000 visitors the first day she was displayed. Nothing like that had happened in the Museum's history up to that time.

Molding and casting the skeleton

In 1999, Field Museum President and CEO John McCarter went to France and met an archaeologist who reminded him of the connection between our skeleton and France's Cap Blanc site. As a gesture of good will, McCarter gave the archaeologist and another colleague access to our collections and archives to piece together how the skeleton made its way from France to Chicago. Upon their request, and with their resources, the Museum also agreed to follow up on the original plan of 1912—to place a cast of the skeleton in front of the frieze, thus restoring this essential Ice Age site.

Before molding and casting began this year, the Museum's anthropology department tested the skeleton's condition and determined that the bones are lightweight and fragile, with cracks, chips and other abrasions. Most had been treated at some point, though there are no records here that describe such work, and the bones were filled with various materials. A yellow-tinted shiny material or

wax-like substance coated several surfaces, and a chalky, gray or flesh-colored material filled some porous areas. Will Pestle, a collections manager who specializes in human remains, produced a complete inventory of the bones. While on exhibit, some of her bones had been set incorrectly, and she was laid out lengthwise as opposed to the original fetal position. "Now each bone is listed as an individual specimen to make managing her more complete, accurate and efficient for further study," said Pestle.

1. Sealing—Since the bones had not turned into either fossils or stone, the preparators worked closely with the conservators to identify a safe sealant. Wherever the bones were porous or cracked, the preparators covered them with thin Japanese tissue that was tamped in place with various grades of the sealant in a surgical-grade acetone. The sealant and tissue can be reversed once the casting has been completed. Matthew Groves, replication shop supervisor in the exhibits department, said, "In our opinion, we have done the best possible job to keep the chemicals out, partially out of respect and partially for science."

2. Seams—The preparators determined where to place seams, since having the correct number of parts to a mold is paramount to protecting the specimen.

3. Clay—Using a wax-based clay, the preparators built walls around the bone to dictate how the rubber would move on the bone.

4. Rubber—Several types of rubber were tested to find one that was soft, elastic, the least adhesive and quick to set. The team chose a silicone rubber with a good range of properties and long life. It was either painted on in layers or poured according to the size of the bone.

5. Plaster—Once the plaster was applied, which retains the rubber, the completed mold was carefully opened up, piece by piece. The original mold can

Building clay around the lower jaw



be kept as an ancillary to the collections, and from it, the Museum can produce about 20 more casts for further research before the form wears out.

Even with 15 years of molding experience in the fine arts, Groves was initially reticent toward working with human remains. He was part of the team that reconstructed Sue, but the dinosaur's bones have lithified, or turned to stone, and are thicker, stronger and less likely to be penetrated. "Once Magdalenian Girl was decommissioned and taken off display, we got up close and could really see the beauty of the bones, their personality," he said. "I had second thoughts but decided that keeping the process in-house would allow us better control and the ability to do the best possible job within an atmosphere of respect and care."

Molding and casting Magdalenian Girl also opened up the opportunity to use new materials in a different way and learn about how the body works. Ultimately, no matter where in the process one is involved, it is about learning and disseminating new knowledge. Groves said, "The recipients were pleased with the quality of the cast, and it made me feel good that we kept the process here at the Field."

Ethical issues

Working with human remains inevitably highlights some interesting ethical issues. During the conservation analysis, there was some debate about which bones to hold aside for testing. Scientists generally agree that the teeth are the most appropriate to test because they are not porous like other bones and do not easily absorb other materials. Magdalenian Girl's teeth are in excellent shape; they had not worn down, and the molars were coming in at the time of her death. But there is an aesthetic argument to extracting erupting teeth. The Museum decided to hold an arm and leg bone aside because of their length and ease at which freehand sculpture could be completed.

Molding and casting also raised questions about conducting processes that can be destructive in order to make a specimen more accessible and produce information. Destructive sampling involves any process, such as radiocarbon dating or DNA testing, in which a portion has to be removed from the specimen for testing. In addition, issues arose on intellectual property, such as who publishes the results, who owns the information and what it is for. As scientific and technical knowledge and processes evolve, situations like this one are good opportunities to review older policies and procedures and ensure that the safest, most updated and ethical handling practices are in place.

Future initiatives

Molding and casting Magdalenian Girl has opened the doors to additional research on the specimen. The three most substantial future projects include properly labeling the bones, acquiring thorough age, sex and metric data and conducting x-rays. Scientists are also considering DNA analysis. The Museum will redesign the manner, safety and security of how she is displayed, as well as upgrade aspects of the *Life Over Time* exhibition, beginning this fall through 2003.

Observing the intense care that went into this process clearly showed me how science and wonder cannot exist without each other. The awe and curiosity I experienced in seeing this Ice Age human up close probably reflects similar responses in a scientist seeking to uncover the facts. While so much of Magdalenian Girl is about the importance of collections—or the research, care and accessibility of a particular specimen—it is also about the connection we have to our origins. Read a natural history magazine, watch a documentary or walk into an exhibition. Inevitably we are irresistibly captivated by clues to where we came from and who we are. **ITF**

Lalick labeled each piece and oriented the skeleton cast in its correct position before sending it to France.



GN90138.41C

YOUR GUIDE TO THE FIELD

A Pullout Calendar of Events for September and October

Inside: Exhibits Festivals Family Programs Adult Programs



Exclusive Exhibition Opens!

Cleopatra of Egypt: From History to Myth

Oct. 20, 2001–March 3, 2002

Cleopatra of Egypt promises to be an extraordinary experience. With more than 350 spectacular artifacts and priceless artworks from the world's premier classical and Egyptian collections, this major exhibition explores the life, liaisons and legend of Egypt's tragic queen.

This exclusive exhibition has already appeared in Rome and London. Don't miss it at The Field Museum—the only North American venue and the last stop on the tour! Visit the *Cleopatra* website at www.field-museum.org/cleopatra.

This exhibition has been organized by The British Museum in collaboration with The Fondazione Memmi, Rome.

International Sponsor: BP
National Sponsor: Exxon

The Field
Museum

Lectures and Films

The **Field Museum** (TFM) and the **University of Chicago's Oriental Institute** (OI) are collaborating on a series of programs to complement the *Cleopatra of Egypt* exhibition and the permanent collections at both institutions.

At The Field Museum

Ancient Alexandria Unveiled

Franck Goddio, Underwater Archaeologist and Author

Marvel at the valuable new discoveries that famed French underwater archaeologist Franck Goddio and his team have pulled from Cleopatra's ancient royal quarters, which are submerged in the harbor of modern-day Alexandria.

Monday, Oct. 15, 6:30pm
\$12, students/educators \$10,
TFM and OI members \$8

Cleopatra of Egypt: From History to Myth

Susan Walker, The British Museum
Hear Cleopatra's extraordinary story from the scholar who curated the exhibition.

Saturday, Oct. 20, 2pm
\$12, students/educators \$10,
TFM and OI members \$8

At the Oriental Institute

1155 E. 58th St.
Call 773.702.9507 for information.

Cleopatra in Context: A Princess Descended From So Many Royal Kings

Dr. Robert K. Ritner, University of Chicago
Wednesday, Oct. 24, 7:30–9pm
\$17, TFM and OI members \$15
Pre-registration required.

Portraits of the Queen: The Ancient Struggle Over Cleopatra's Image

Ian Moyer, University of Chicago
Wednesday, Oct. 31, 7:30–9pm
\$17, TFM and OI members \$15
Pre-registration required.

Free Film Series

Films are followed by docent-led tours of the OI's Joseph and Mary Grimshaw Egyptian Gallery.

Who Was Cleopatra?

Sunday, Oct. 21, 1:30pm

Cleopatra: Destiny's Queen

Sunday, Oct. 28, 1:30pm

*BUST COURTESY MUSEI APTO INI, ROME

General Museum Information: 312.922.9410

Family and Adult Program Information and Tickets: 312.665.7400

New Exhibition—Sigmund Freud: Conflict and Culture

From the world's largest collection of the most influential and controversial psychoanalyst's work, the exhibition reveals Freud's key ideas and the ways in which his theories have become a part of popular culture.

October 3–November 1, 2010

U.S. LIBRARY OF CONGRESS



Analyzing Freud

This exciting new program combines the breadth and depth of a college course with the flexibility to tailor your studies to your interests and schedule. Enjoy *Analyzing Freud* as a lecture series. Or enroll in the complete course, which also includes readings, assignments and discussion labs through the University of Illinois at Chicago.

Lecture Series

Individual lectures: \$12, students/educators \$10, members \$8

Attend all nine lectures and save 20 percent on the full series: \$86, students/educators \$72, members \$58.

Attend three lectures and save 15 percent: \$30, students/educators \$25, members \$20.

Credit Course

Enrollment information for *Analyzing Freud* (LAS 494) is available from UIC at www.oce.uic.edu or 312.996.8025.

October Lecture Topics



Freud and Our Past

Michael S. Roth, California College of Arts and Crafts

Get a historical perspective on the relationship between our past and our identity. Curator Michael Roth will discuss *Sigmund Freud: Conflict and Culture* and compare pre-Freudian, Freudian and post-Freudian approaches to psychotherapy and memory.

Wednesday, Oct. 3, 6:30pm

Beyond the Mythologies: Dreaming Across Cultures

Dr. Wand Kracke, University of Illinois at Chicago

Understand how Freud's ideas connect to other perspectives on dreams.

Tuesday, Oct. 9, 6pm

On the Unconscious

Dr. Peter L. Giovacchini, Center for Psychoanalytic Studies

Explore Freud's theory that the unconscious could affect conscious thought and behavior.

Tuesday, Oct. 16, 6pm

Psychoanalytic Perspectives on Picture Books for Young Children

Dr. Ellen Handler Spitz, University of Maryland

Consider how children's literature contributes to our psychological development.

Tuesday, Oct. 23, 6pm

Freud and Modern Neuroscience

Hugh R. Wilson, York University

Trace the connections between Freud and modern neuroscience.

Tuesday, Oct. 30, 6pm

Visit www.fieldmuseum.org or call 312.665.7400 for a list of November lectures.

Organized by the Library of Congress in
collaboration with the Freud Museum, London.
The Field Museum in collaboration with the
University of Illinois at Chicago and the
University of Maryland. Community Advisory Panel for
the exhibition.

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collaboration with the Freud Museum, London.
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University of Illinois at Chicago and the
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the exhibition.

Festivals Offer Something for Everyone

Whether it's world music, Latino culture, films or a fall harvest celebration, join us for these five festivals!



WEINSTEIN/GN89594 106

City of Chicago's World Music Festival

Highlights at the Field include:

- Groove with Tarika, Madagascar's most-loved musical ambassadors.
Saturday, Sept. 22, 1pm, FREE with Museum admission

- Discover the melodic Dan Tranh, a Vietnamese stringed instrument, played by Ngo Than Nhan in the Spring Essence Music Workshop.
Thursday, Sept. 27, 2-4pm, \$10



- Experience the profound poetry of Ho Xuan Huong, an 18th-century Vietnamese concubine. Accompanied by Ngo Than Nhan, poet and translator John Balaban will read from his acclaimed translation of *Spring Essence: The Poetry of Ho Xuan Huong*.

Thursday, Sept. 27, 6:30pm, \$10, members \$8

Presented in collaboration with The Poetry Center.

Unity Day

Celebrate how cultures come together around music with exciting hands-on activities and performances.

*Saturday, Sept. 22, 10am-3pm
Free with Museum admission*

Poet and translator John Balaban



Celebración Our People, Our Americas

Discover how a Field Museum research expedition with Peruvian and other international partners led to the creation of a 5,000-square-mile national park in Peru.

In particular, learn how a Field Museum research expedition with Peruvian and other international partners led to the creation of a 5,000-square-mile national park in Peru.

*Thursday-Friday, Oct. 4-5, 10am-1pm
Saturday-Sunday, Oct. 6-7, 11am-4pm
FREE with Museum admission*

Celebración 2001 is made possible through the generosity of Abbott Laboratories.

Margaret Mead Film Festival

View three insightful and artistic documentaries exploring the formation of cultural identity.

*Saturday, Oct. 13, 11am-3pm
\$15, students/educators \$12, members \$10*

Sōr Juana Festival

Sample a range of Latino music at this showcase of stellar female musicians of Mexican heritage.

Friday, Oct. 26, 7pm. Call for details.

Presented in collaboration with the Mexican Fine Arts Center Museum.

Halloween Harvest Festival

Commemorate the harvest season and Halloween. Highlights include a family performance from the Rembrandt Chamber Players.

Saturday, Oct. 27. Call for details.

Fun for the Family

Workshop

Dr. Wendy Taylor, TFM Geology Dept.

Touch fascinating fossils from around the world and make your own fossil impressions.

Families with children ages 3-5

Saturday, Sept. 15, 10-11am

\$10, members \$8



E. RICHARDSON



Exclusive

New Discoveries Series

B. BREMER

The Lanzendorf Collection: Marriage of Art and Science

*John Lanzendorf,
Collector of Paleo Art*

Discover how dinosaur art fuses scientific inquiry and artistic imagination. Book signing included.

Monday, Sept. 10, 6:30pm

\$20, students/educators \$18, members

Amphibian Conservation in the 21st Century

Dr. Michael Lannoo, Recipient of the 2001 Parker/Gentry Award

Meet an award-winning biologist who is crusading to reverse environmental degradation that is harming amphibians and may affect human health.

Tuesday, Sept. 11, 6:30pm

\$12, students/educators \$10, members \$8

Natural Disasters and Ancient Oaxaca

Dr. Nelly Robles García, National Institute of Anthropology and History in Oaxaca

Find out how early inhabitants and modern archaeologists have coped with the impact of ruinous earthquakes.

Saturday, Sept. 15, 2pm

\$12, students/educators \$10, members \$8

Architectural Design: A Response to Culture

Douglas Cardinal, Douglas J. Cardinal Architect, Ltd.

Discover an acclaimed architect whose work eloquently expresses environment and culture.

Sunday, Oct. 7, 2pm

\$12, students/educators \$10, members \$8

Presented with the support of the Department of Foreign Affairs and International Trade of Canada.



COURTESY OF M. LANNOO

Below are some of the temporary exhibitions you will have an opportunity to visit in 2001. Some are free. Remember to call 312.922.9410 or visit our website for specific information.

In Her Hands: Craftswomen Changing the World

Through January 15

Living Colors: A Butterfly Garden

Through September 3

Julie Taymor: Playing with Fire

Through November 4

Field Trip

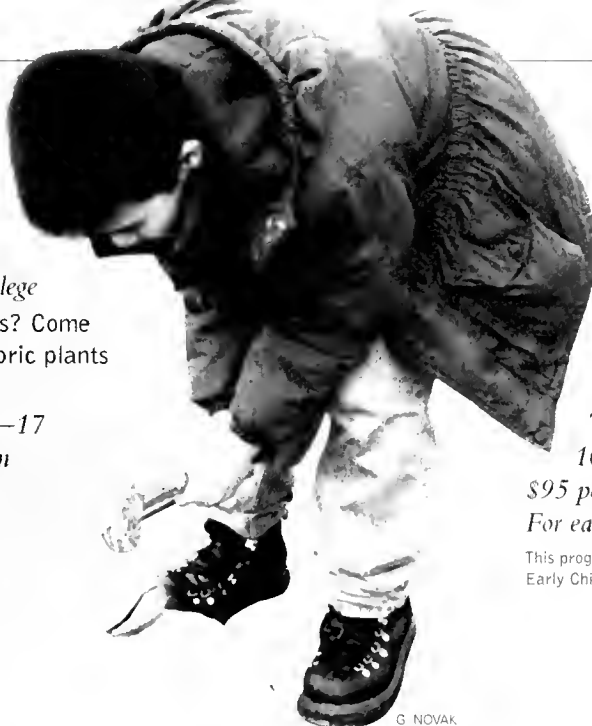
David Dolak, Columbia College

Do you like to hunt for fossils? Come with us to search for prehistoric plants and animals.

Families with children ages 8–17

Saturday, Sept. 22, 8am–3pm

\$32, members \$27



G. NOVAK

Workshop

Connie Sulkin, TFM Education Dept.

Learn about raccoons, Woodland Native Americans and dinosaurs as we share stories, songs and hands-on activities.

Children ages 3–5 and an adult companion

Tuesdays, Oct. 2–Nov. 20

10–11:30am or 1:30–3pm

\$95 per child, \$80 per member child

For each child, one adult attends at no charge.

This program is sponsored by the Siragusa Foundation Early Childhood Initiative.

Older Adult Lecture Series

Tuesday Afternoons at the Field

Spend a relaxing, educational afternoon with a lecture featuring one of our special exhibitions and a social discussion over complimentary coffee and tea.

Each lecture is \$15, members \$12.

Tickets to Julie Taymor: *Playing with Fire and Cleopatra of Egypt* are not included.

Bringing Exhibits to the Field

Robin Groesbeck and Robert Weiglein, TFM Exhibits Dept.

Tuesday, Sept. 25, 2pm

How Freud Came to Develop His Psychology of the Unconscious

Dr. James W. Anderson, Institute for Psychoanalysis

Tuesday, Oct. 16, 2pm

Cleopatra VII: Clever Woman or Seductive Temptress?

Frank Yurco, Egyptologist

Tuesday, Nov. 6, 2pm

The member rate of \$12 is available to Oriental Institute members for this lecture.

Adult Courses and Workshops

Botanical Painting and Illustration

Marlene Hill-Donnelly, TFM Geology Dept.

Draw and paint plants with scientific accuracy and artistic style. No experience necessary.

Tuesdays, Sept. 18–Nov. 6, 6–8:30pm

\$115, members \$98

Fossil Basics

David Dolak, Columbia College

Identify different types of fossils and prepare a real fossil fish for research or display.

Wednesdays, Oct. 3–17, 6–8pm

\$42, members \$36

Spineless Wonders!

Dr. Wendy Taylor, TFM Geology Dept.

Go behind the scenes to see rare fossil invertebrates and discover how paleontologists study fossils.

Saturday, Oct. 13, 10 am–noon

\$15, members \$12



Cheyenne Visions

Through March 31, 2002

Sigmund Freud:

Conflict and Culture

October 3 through December 9

Cleopatra of Egypt:

From History to Myth

October 20, 2001, through
March 3, 2002



J. WEINSTEIN/GR 87015 19AC

Join us for an evening of family fun and camp out amidst some of our most popular exhibits.

Families with children ages 6–12

5:45pm on Friday, Oct. 5 to 9am on Saturday, Oct. 6

\$45 per participant, members \$38

Family Overnight

On your next visit, look for exciting and fun visitor programs. Hear stories, sing songs, dissect owl pellets, meet scientists and more! Check the information desk when you arrive.

Take a flashlight tour of Inside Ancient Egypt at our family overnight.

Fossil Collecting at Larson Quarry

David Dolak, Columbia College

Search for 400-million-year-old corals and mollusks at an exciting new site for our adult-only fieldtrips.

Saturday, Sept. 15, 7am–2pm

\$48, members \$41

The Return of the Sandhill Cranes

Alan Anderson, Naturalist

Watch these beautiful birds gather in the Indiana wetlands, which attract thousands of cranes each fall.

Saturday, Oct. 27, 10am–8pm

\$60, members \$50



PHOTOGRAPH BY J. WEINSTEIN/GR 87015 19AC

Coming in November:
The Human and Beyond

The following activities are free with Museum admission.

Hear the stories behind our fascinating exhibitions on a daily Highlights Tour. Also watch for tours of *Inside Ancient Egypt* and *Eskimos and Northwest Coast Indians*.

Meet Field Museum scientists and see rarely displayed specimens from our collections.
Every second Saturday of the month, 11am–2pm

Bring your own materials and get tips from artists and scientific illustrators as they create artwork inspired by our exhibitions.

Every third Saturday of the month, 11am–2pm



CHICAGO BOTANIC GARDEN

Naturalists: From Beginner to Expert

The Field Museum, The Morton Arboretum and the Chicago Botanic Garden offer an integrated program for naturalists of all experience levels.

Local Flora: Fall

Edna Davion, TFM Botany Dept.

The landscape comes alive when you can identify plants in their ecosystems.

Tuesdays, Sept. 11, 25 and Oct. 2, 6:30–8:30pm
Saturdays, Sept. 15, 29 and Oct. 6, 9am–noon
\$150, members \$120

Field Ecology: Fall

Michelle Johnson,
TFM and Chicago Wilderness

Study animal behavior and plant life cycles in this outdoor lab.

Wednesdays, Sept. 12 and 19, 7–9pm
Sundays, Sept. 16 and 23, 9am–1pm
\$130, members \$110

Exploring Mosses, Algae and Lichens

Rich Hyerczyk, TFM

Discover the paradox these organisms pose to biologists.

Wednesdays, Sept. 26, Oct. 3–17 and Nov. 1 and 8, 6–9pm
\$130, members \$110

Illinois Geology: Glaciers and Tropical Seas

Gina Wesley and Dr. Darin Croft, TFM Geology Dept.

Explore the complex past that led to Illinois' modern landscapes.

Thursday, Oct. 11, 6:30–8:30pm
Tuesdays, Oct. 16 and 23, 6:30–8:30pm
Sundays, Oct. 14 and 28, 9am–4pm
\$220, members \$180

Interpretive Skills for Naturalists

Sara Race and Dan Brinkmeier,
TFM Environmental and Conservation Programs

Develop your ability to share environmental information with others.

Thursdays, Oct. 25 and Nov. 1, 6–9pm
Saturdays, Oct. 27 and Nov. 3, 9am–noon
\$150, members \$120

For courses at The Morton Arboretum, call 630.719.2468.

For courses at the Chicago Botanic Garden, call 847.835.8261.

PEERLE the young one is a...
multi-disciplinary...
means to be...
neuroscience, psychology...
November 7-11, 2006...
Register by Oct. 1 for a discount.

Don't Miss Julie Taymor: Playing with Fire

Extraordinary sets, masks and costumes will ignite your imagination. Discover how Julie Taymor, best known for her direction of Disney's *The Lion King* on Broadway and the feature film *Titus*, integrates diverse cultural traditions to create spectacular theater.

Open through Nov. 4, 2001

Informances: The Magic Behind Puppetry

The Jabberwocky Marionettes bring puppets to life.

Saturdays and Sundays through Nov. 4, 11am–3pm

FREE with Museum admission

Cultural Crossroads Weekend

Meet the genius behind the *Playing with Fire* exhibition, see her work come to life and explore the roles of performance and creativity with a full weekend of thought-provoking events. Check our website at www.fieldmuseum.org for more details.

An Evening with Julie Taymor

Thursday, Sept. 6, 7pm

\$20, students/educators \$18, members \$15

Film screening of *Titus*

Julie Taymor will give an introduction and, after the film, answer audience questions.

Friday, Sept. 7, 7pm

\$18, students/educators \$15, members \$12



E. CATALANO



Playing with Fire—Crossroads in Culture and Creativity Symposium

Introduction by Julie Taymor

Saturday, Sept. 8, 10am, \$25

Exhibit Walk-Throughs With Cultural Experts

Thursday, Sept. 6, 5:30pm—*Creativity and Culture*

Friday, Sept. 7, 5:30pm—*Performance in Cultures*

\$18, students/educators \$15, members \$12

Receive a 20 percent discount when you attend a gallery walk-through and the event immediately following.

Julie Taymor: *Playing with Fire* was organized by the Wexner Center for the Arts at The Ohio State University. This exhibition and its national tour are made possible by Ford Motor Company. Major support is also provided by Agnes Gund and Daniel Shapiro, the John S. and James L. Knight Foundation, and PricewaterhouseCoopers.

Breaking Science News Comes to the Field

Search and Discovery of Our Earliest Ancestors

Meave Leakey, Paleoanthropologist

Hear for yourself about the controversial new discovery that made headlines worldwide this spring—a 3.5-million-year-old skull, found by world-renowned scientist Meave Leakey, suggests that there may be another branch on the human family tree.

Thursday, Oct. 4, 6:30pm

\$20, students/educators \$18, members \$15



ROYCE CARLTON



Visitor Information

Hours: 9am–5pm daily. Closed Christmas and New Year's Day.

To get tickets: *Cleopatra of Egypt: From History to Myth* and *Julie Taymor: Playing with Fire* are specially ticketed exhibitions.

Member passes can be reserved in advance by calling Ticketmaster at 312.902.1500 (service charges apply) or coming to the membership desk near the Museum's south entrance (no service charges). Non-member tickets can also be reserved in advance through Ticketmaster or at the Museum's will call desks.

Day-of tickets are available at the Museum, while supplies last.

Information: 312.922.9410 or www.fieldmuseum.org



Burmese Bowl



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When world-renowned Burmese lacquerware experts Ralph Isaacs and Sylvia Fraser-Lu each visited the Museum's collections last year, they both zeroed in on this water bowl, finely adorned with royal figures in an imaginative palace setting. Isaacs suggested it was one of the best pieces anywhere, and Fraser-Lu called it the "piece de la resistance of the collection."

Isaacs wrote that its delicate construction implies that the weft of the bamboo foundation is made of horsehair. The detachable hoop, which protects the rim, is possibly the only surviving one of its kind.

The bowl's maker, Hsaya Sein, probably crafted it for a competition organized by the British colonial government in Rangoon (now Yangon). He etched "first prize certificate holder" around the upper wall to entice potential customers.

The scenes depict the legendary 11th-century exploits of Kyanzittha, army commander to King Anawrahta, whose throne he later usurped. Many stories are based on historical events in which Anawrahta waged wars of expansion against neighboring kingdoms. The bowl, made c. 1910, tells of an attack in Yunnan in southwestern China, supposedly to obtain a sacred Tooth Relic of the Buddha.

Dark Night of the Snakehunter



Stuck in the mud

Amy E. Cranch, Editor

“Snake! Snaaake! Sssnnnake!”

Depending on whom you ask, this call emanating from the infinite new-moon darkness in a mushy mangrove swamp could signify someone’s scariest nightmare—or most thrilling victory.

Equipped only with flashlights, plastic bags and bare hands, Harold Voris, curator of amphibians and reptiles, and his entourage of up to 30 volunteers have been slogging through the parks of Singapore collecting water snakes for research. Although abundant throughout Asian wetlands, homalopsines are relatively unknown. These live-bearing, rear-fanged snakes are mildly venomous, with a bite, though rare, that only produces an annoying stinging sensation. What makes them intriguing to scientists is that they can tolerate salty, brackish conditions, unlike their freshwater relatives, and they used to live solely on land.

“Snakes and other reptiles came on land more than 100 million years ago,” said Voris. “But about

60 million years ago, several groups of reptiles reinvaded the sea. We want to find out why—and how.”

Focused in Sungei Buloh Nature Reserve and Pasir Ris Park, where the mangrove forests take advantage of the interface between sea and land, the studies aim to determine the abundance of homalopsines, as well as detail their ecology. Singapore has a highly fragmented series of small nature reserves, some only as big as an urban park. Impressively, however, the reserves support a healthy, stable snake community; some areas maintain as high or a higher diversity of snakes than other parts of Southeast Asia. This is a good indication of habitat health and an excellent case for active conservation.

“The Singapore government has argued that the

reserve fragments are so small, why bother keeping them?" said Voris. "It would rather turn them into recreational areas like soccer fields or manicured parks. But they are worth keeping, not just for their biodiversity, but also as a reservoir for species that have been there over time."

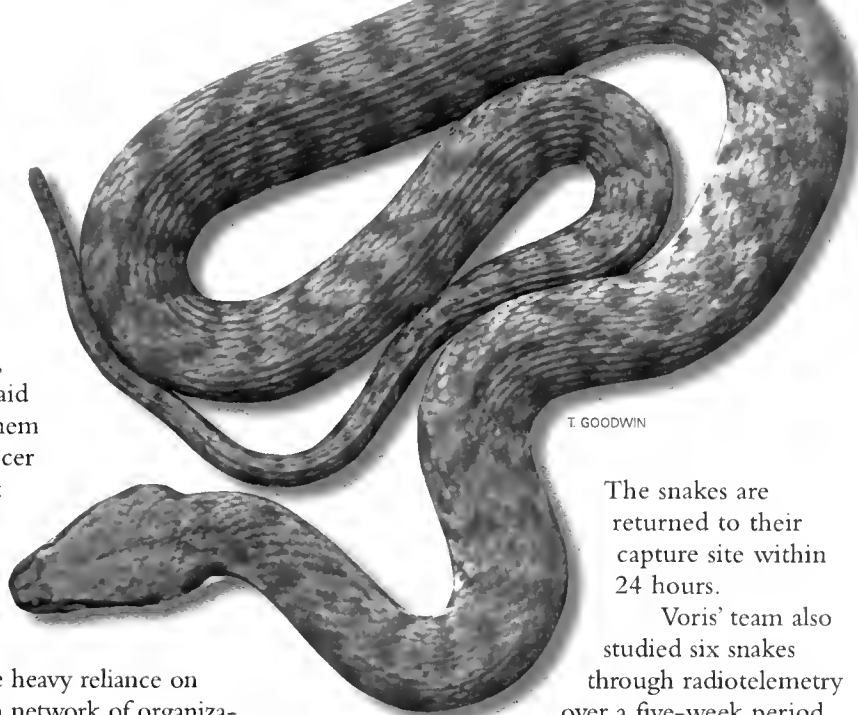
Unique to the surveys is the heavy reliance on volunteers assembled through a network of organizations that include the Raffles Museum of Biodiversity Research at Singapore's National University, the National Parks Board and the National Zoo. During one expedition, for example, the work force spent 21 nights in the field and averaged six to 20 people per night, excluding the investigators.

"The consistency and dedication of the volunteers are a pleasant surprise for us," said Voris. "It signifies an interest in conservation. Most of the volunteers are young and will hopefully continue working to save the snakes and remaining natural habitats."

During the past trip, the volunteers' only responsibility at first was to spot snakes, but it quickly became a jovial obsession. "It was a wild scene with lots of hoopin' and hollerin' every time someone found a snake," said Voris. "They even started a 'club' for people who had been bitten!"

Working during the moon's new and full phases, when the tides are accentuated and snake activity is high, volunteers tolerate dark and squishy conditions. They use homemade wooden skis or dive booties to navigate through the muddy goop and rely on their hands or tongs to capture the snakes. The volunteers first observe, collect and bag the snakes. Then a team leader, usually Voris, records the data, including the snake's identity, time it was captured and details of its microhabitat. Each snake receives a number, and its weight, length and sex are processed in a laboratory. It is also massaged to regurgitate its food. While land snakes favor small animals such as mice and lizards, these slippery swimmers feed on fish, crabs and other shelled food, which could provide clues as to why they gave up on land so long ago.

Most Sungei Buloh snakes receive passive integrative transponder (PIT) tags, or rice-sized microchips injected beneath the skin, that can be read via scanner. This identifies a snake if it is recaptured, while also providing information on how it grows, uses a habitat and how long it lives.



*Cerberus rynchops,
dog-faced water snake*

The snakes are returned to their capture site within 24 hours.

Voris' team also studied six snakes through radiotelemetry over a five-week period.

A radio transmitter was surgically implanted in their abdomens that could be detected from a greater distance than the PIT tags. Dr. Daryl Karns, a Field Museum research associate, could track the individual snakes using a radio receiver without having to recapture them for information on their movement in time and space and how they utilized the habitat. The snakes are allowed to recover for several days before being released back at their point of capture.

At press time plans were under way for an additional trip this fall to gather information on the aquatic snakes' growth rates under natural conditions. It is also hoped that local researchers will become interested in homalopsines and build on the foundation Voris and his team have provided. **ITF**

For more information, visit www.fieldmuseum.org/research_collections/zoology/zoo_sites/snakes.

*Dr. Daryl Karns tracks
snakes via radiotelemetry.*



© SUNDAY TIMES, ALAN LIM, FROM A STORY ON MARCH 18, 2001

Field Ambassadors: Exploring the Possibilities

Mark Larson, Manager, Educational Partnerships and Programs
Jordan Lungstrum, Administrator, Educational Partnerships

Tracy Kwock, DePriest Elementary School teacher, sits crossed-legged on the floor outside *Wrapped in Pride: Ghanaian Kente and African American Identity*. She is surrounded by 25 raptly attentive second graders as she reads *Kente Colors* by Chicago author Debbie

Kwock is one of 63 Field Ambassadors—classroom educators and administrators who act as liaisons between their schools and the Field. Through orientations and forums, Ambassadors work intimately with Museum educators to explore the Museum and its resources. They meet with scientists, exhibitors and education leaders to develop innovative ways to engage their students and colleagues with Museum content.

Imagine...

- Sue Hendrickson spends an hour swapping adventure stories with 150 girls from the Young Women's Leadership Charter School.
- Nationally recognized storyteller Syd Lieberman reveals the human drama behind a Fabergé egg before Ambassadors tour *Kremlin Gold*.
- Blaine Elementary transforms itself into a "dinosaur museum."
- Transfiguration Catholic School hosts an event for its faculty at the Museum, and teachers from every grade level bring their classes here in response.
- Ambassadors meet scientists, walk through exhibition models or pose questions to political, literary, environmental and other distinguished leaders they might not otherwise meet.
- Ambassadors formed a book club that covers Museum content for different grade levels. If approved, the books are added to a resource list for all teachers.

Field Ambassadors was launched in 1999 with 28 dedicated Chicagoland educators and has grown dramatically since then. In 2000, the program expanded to 63 teachers. This summer, we received more than 100 applications and selected 60 new Ambassadors. Starting in 2002, 100 Ambassadors will be added each year. We anticipate having a Field Ambassador in every Chicago Public School and many private and suburban schools, forming a powerful teacher network that explores and expands the boundaries of possibility when children encounter the real thing.

"The Field Museum," says Kwock, "is no longer an imposing building filled with knowledge beyond my students' grasp, but rather a place where great discoveries can be made and explored. My students are empowered to ask questions. We have become partners in learning."

Imagine that.

If you or someone you know is interested in being a Field Ambassador, call 312.665.7558 or email fieldambassadors@field-museum.org for an application, due June 30 of each year.

Field Ambassadors is made possible by a grant from Polk Bros. Foundation with additional support from The Negaunee Foundation and Ryerson Tull Foundation.



M WIDHALM/GETTY IMAGES

Left to right: Marshall Baltazar (Pulaski Academy), Wilhelmina McGee (Shields Elementary), Chris Olsen (Northside College Prep), Sylvie Anglin (University of Chicago Laboratory School), Aurelia Spann (Henderson Elementary) and Eileen Day (Blaine Elementary)

Chocolate. When Kwock finishes, she distributes six copies to the children to share as they make their way through the exhibition. They squeal with the excitement of recognition, comparing images from the book to the real thing. Insightful questions charge the air. The students emerge with an enriched understanding of kente cloth, a satisfying reading experience and a sense that The Field Museum is an extension of their classroom.

Last year's Field Ambassadors left these words of encouragement...

"Welcome to a very wonderful event in your life. We are the 'new explorers' in education!"

– Carol Cleland, Transfiguration Catholic School

"Expect your mind to soar and your heart to lead you to new challenges."—Sandra Stone, Suder Elementary School

"A magical, mystical voyage for all your senses. To be shared with all you meet!" – Mary Burgess, DeKalb High School

"Be moved! Here, work is play! Play hard!" – Dennis Zygodlo, Austin Community Academy

Cleopatra Ball to Charm Chicago

Pull out the golden crowns, sultry gowns and lavish robes. The Cleopatra Ball may inspire the Elizabeth Taylor or Richard Burton in all of us.

On Friday, Oct. 19, the Women's Board of The Field Museum will host The Cleopatra Ball— unquestionably Chicago's most prestigious, seductive black-tie affair this fall—to mark the opening of *Cleopatra of Egypt: From History to Myth*.

Selected from the world's great Egyptian and classical art collections, the masterpieces in *Cleopatra* reveal the life and liaisons of Egypt's last, most charismatic queen. Remarkable sculptures and portraits from the ancient world illuminate how Cleopatra's contemporaries perceived her. The exhibition also showcases how Cleopatra's story has endured through countless poems, books, songs, paintings, movies, jewelry and other works, thousands of years after her tragic death.

United Airlines will sponsor The Cleopatra Ball and assist the Women's Board in welcoming this extraordinary exhibition to The Field Museum, the only North American venue. Cartier has also provided in-kind support.

The Women's Board anticipates 1,000 guests to dine, drink and dance in Stanley Field Hall in honor of Cleopatra, who has stirred the heart and fired the imagination for the past 2,000 years. Tickets start at \$400. Call the Women's Board at 312.665.7135 for information.

This exhibition has been organized by The British Museum in collaboration with the Fondazione Memmo, Rome.

International Sponsor BP
National Sponsor Exelon

From the Pasture to the Living Room

Suite Home Chicago follows the hoofsteps of Chicago's most legendary public art display, *Cows on Parade*, with more than 400 sofas, chairs, ottomans and television sets dotting the city's parkways and plazas. Handcrafted by local artists, these fiberglass forms will make you laugh, ponder or gaze in awe as their expressions range from the silly to the serious. They also make a great place to relax and enjoy our beautiful city.

Cleopatra's Throne, The Field Museum's contribution to *Suite Home Chicago* on the southwest stairs, was created by David Hanke of the exhibits department. His design was chosen among several imaginative staff submissions because the spectator becomes the royal figure. The Egyptian-inspired sculpture is a golden cobra flanked by cheetahs and Cleopatra cartouches.

The throne attracts a line of people who want to pretend they are queen or king, if only for a fun photo opportunity. We hope it will compel visitors to learn more about Cleopatra's riveting story when *Cleopatra of Egypt: From History to Myth* opens on Oct. 20 here at the Field.

The Field Museum wishes to thank Bob Crawford, chief executive officer of Brook Furniture Rental and a Field Museum trustee, for his generous support of Cleopatra's Throne.



Jonathan and Alexandria Chow, 12 and 4, of Okemos, Mich., kick back as king and queen before visiting the Museum.

America. To produce the 10 maps in that first edition, de Laet enlisted the talented Hessel Gerritsz, cartographer for the East India Company. The result set a higher standard for accuracy in mapping the Americas and helped establish a new, open style of cartographic rendering that broke with the heavily decorative style of Gerhardus Mercator (1512-1594) and Ortelius (1527-1598).

A splendid copy of the noteworthy second Dutch edition has found a new home in the library's Mary W. Runnells Rare Book Room, filling a significant gap in the map collections.

America. To produce the 10 maps in that first edition, de Laet enlisted the talented Hessel Gerritsz, cartographer for the East India Company. The result set a higher standard for accuracy in mapping the Americas and helped establish a new, open style of cartographic rendering that broke with the heavily decorative style of Gerhardus Mercator (1512-1594) and Ortelius (1527-1598).

Even as de Laet was publishing the first edition of his work, he was directing the efforts of the West India Company in consolidating Dutch holdings and activities in North America. The company founded Fort Orange in 1624 near the site of present-day Albany, New York, and in 1626 relocated scattered Dutch settlers to the lower tip of Manhattan Island, creating what would become New York City. De Laet's expanded second edition of *Beschrijvinghe* in 1630 included descriptions of these new North American regions of Dutch interest and added four more maps by Gerritsz, three of them dealing with the east coast of the continent.

We reproduce here a detail from the most important of these—the Nova Anglia map—containing numerous cartographic “firsts.”

This is the first printed map to use the Native American terms *Manhattes* (Manhattan) and *Massachusetts* as place names and to name *N. Amsterdam* (the future New York). Also used for the first time are the Dutch names *Noordt Rivier* for the Hudson and *Zuyd Rivier* for the Delaware. In the title cartouche of the map itself appears the first use of *Norvum Belgium* (New Netherlands).

Dr. Richard Boyum of the University of Wisconsin generously donated the map and has received an honorary membership to The Friends of The Field Museum Library, which fosters interest in the library and supports the development of its rich collections of books, prints, manuscripts and other research materials. For information on becoming a Friends member, call 312.665.7136 or email library_friends@fsmnh.org.



Cleopatra Member Previews

Members-only viewing dates are Oct. 21, 24, 26 and 28, 5 to 10pm.
Details to come in the mail.

Cleopatra of Egypt: From History to Myth, open Oct. 20, 2001, through March 3, 2002, promises to be an extraordinary experience with more than 350 priceless artifacts and artworks to explore the life, liaisons and legend of Egypt's tragic queen. This exclusive exhibition has already closed in Rome and London. Don't miss your last chance to see it here—the only North American venue and the last stop on the tour.

Get additional Cleopatra tickets now!

If you plan to see *Cleopatra of Egypt* beyond the members-only viewing, member passes and advance tickets are now available.

Benefits: Family members may receive four passes, and senior, student, individual and national affiliate members may receive two passes.

Purchasing Additional Tickets: *Cleopatra* tickets for an additional member in your household are \$10 each, and tickets for a non-member guest are \$10 each plus general admission. The Museum offers discount combination tickets that include basic admission, with greater discounts for children, seniors and students.

Ordering Tickets: To guarantee entry at the time of your choice, reserve your tickets through

Ticketmaster at 312.902.1500 (fees will be assessed), or visit the membership desk (no additional fees). Tickets available on a first-come, first-served basis for same-day viewing or future dates.

Exchanging Tickets: If you need to exchange tickets for a future date, please do so at the membership desk no later than one week before the date of the tickets you currently hold. No refunds or exchanges are available for unused tickets.

For information, visit www.fieldmuseum.org, or call the membership office, open Monday through Friday between 8:30am and 4:30pm, at 312.665.7700.

Do you have family or friends visiting over the holidays?

Several Chicago hotels are offering special packages that include tickets to see *Cleopatra of Egypt*, open Oct. 20, 2001, through March 3, 2002.

With convenient locations along Michigan Avenue, these hotels offer wonderful amenities and a range of options to suit every budget. Call each one for details on specific packages, which may include such benefits as complimentary breakfast, fitness center privileges and valet parking. To offer your guests maximum flexibility during their stay, hotel guest tickets to see *Cleopatra*, which

is a timed-entry exhibition, can be used anytime during their visit without having to call ahead.

Hotel reservationists will inform you of any blackouts that may apply when you book your package. We hope to see you and your guests soon.

Chicago's New Essex Inn
800 South Michigan Avenue
800.621.6909

Congress Plaza Hotel
520 South Michigan Avenue
800.635.1666

Executive Plaza Hotel Chicago
71 East Wacker Drive
800.621.4005

Four Seasons Hotel Chicago
120 East Delaware
312.280.8800

The Centennial Club—Cleopatra Event

Centennial Club members can enjoy a private viewing of *Cleopatra of Egypt* on Oct. 18. The British Museum's Susan Walker, curator of *Cleopatra*, will give a brief presentation. Details on this invitation-only event will come in the mail.

The Centennial Club is comprised of individuals and families who have been members for 30 years or more. For information, call the membership office at 312.665.7700.

Field Museum Tours at a Glance

For information, call Field Museum Tours at 800.811.7244 or email fmtours@sover.net. Please note that rates, prices and itineraries are subject to change and that prices are per person, double occupancy.

Egypt Revisited

Oct. 14–28, 2001 (15 days)

Explore spectacular archaeological sites and monuments not seen on your first trip. (First-time visitors should see Egyptian Odyssey below.) Highlights feature Abusir, Dashur, Maidum, Faiyum, Tanus, Abydos, Dendara, dawn at Abu Simbel and three nights cruising Lake Nasser, plus lesser-known sites in Cairo, Luxor and Aswan.

Leader: Frank Yurco, Egyptologist and research associate in anthropology

Price: \$4,325, not including airfare

Egyptian Odyssey

Oct. 28–Nov. 11, 2001,
or Jan. 27–Feb. 10, 2002 (15 days)

Explore the world of ancient pharaohs by land and riverboat. Visit the famed pyramids of Giza, The Egyptian Museum, the Valleys of the Kings and Queens, Karnak, the temples of Khnum, Horus and Isis, and Abu Simbel's three colossi of Ramses II. Enjoy five-star accommodations throughout.

Leaders: Egyptologists Thomas Mudloff (Oct.) and Frank Yurco (Jan.)

Price: \$4,325, not including airfare (estimated \$945 return from NY)

Amazon by Riverboat

Dec. 1–9, 2001,
or Jan. 18–26, 2003 (9 days)

Explore the Amazon, Ucayali and Tapiche Rivers in Peru for eight days aboard a 14-cabin riverboat. Search for river dolphins; howler, squirrel and capuchin monkeys; sloths; and capybaras, plus unusual birds such as the jabiru and hoatzin. Optional extension to Machu Picchu, the magnificent archaeological sites around Cuzco.

Leaders: Botanist William Burger (Dec.) and zoologist Barry Chernoff (Jan.)

Price: \$3,890, including round-trip airfare from Miami (Dec.)

Mysteries of Earth: An Expedition by Private Jet

Jan. 20–Feb. 13 or Feb. 14–March 10, 2002 (25 days)

Embark on a once-in-a-lifetime journey to the world's most remote habitats: the vast flora and fauna of the Amazon; volcanic Canary Islands; great apes of Borneo; annual migration in Tanzania; wildlife of Nepal; rare species of the Galapagos; undersea life of the Great Barrier Reef; moai of Easter Island; tribal cul-

tures of Papua New Guinea; the Seychelles; and Samoa.

Leaders: Social scientist Michael Shermer (Jan.) and geologist

Wayne Ranney (Feb.)

Price: \$36,950, including airfare from Miami and return to Washington, D.C., on a first class, 88-seat private jet

Tanzania Migration Safari

Feb. 1–14 (wait-listed) or Feb. 19–March 4, 2002 (14 days)

Travel at the best time of year to see the spectacular herds of the Serengeti Plains. Hundreds of thousands of wildebeest and tens of thousands of zebras and antelope amass in this area each year, attended by lions, cheetahs, hyenas and other predators. Enjoy four days in the Serengeti, then three days at Ngorongoro Crater. Zanzibar extension available.

Leaders: Zoologists Bill Stanley and Mary Anne Rogers (first trip) and David Willard (second trip)

Price: \$6,245, not including airfare

Nature and Civilization in the Mediterranean

April 6–20, 2002 (15 days)

Enjoy ancient sites and natural history on a 15-day voyage aboard an all-suite, 88-passenger yacht. Visit Kourion in Cyprus, and tour Aphrodisias or Dalyan and Caunos in Turkey. In Greece, explore Kastellorizo, Rhodes, Santorini, Heraklion and Knossos on Crete, Delphi, and the birdlife and wetlands of the Ambracian Gulf. Experience Kotor, Montenegro, on the Adriatic Coast, and finish your voyage with a day in Venice, Italy.

Leader: Anthropologist David Reese

Price: TBA



TRAVEL DYNAMICS

discovered dot IN THE FIELD

November
December
2001

The Field Museum's Member Publication

Blutner Symposium
for Biodiversity
Sigmund Freud
Conflict and Culture
... is an Inter-
national Psychoanalytic
Association. The
struggle is not yet over
short sentence in German
from Freud

A Place to Gather, a Place to Reflect



Barbara Ceiga (left) and Shelley Ulrich of the exhibitions department reflect on the U.S. flags that flanked the Museum's north façade.

Sept. 11 was a day of tragedy for our nation and all of humanity. We closed the Museum out of concern for the safety of our visitors and staff and to mourn the loss of lives and the suffering of our nation.

On Sept. 12, we reopened with a new sense of dedication to our mission and work. From this tragedy we take on a rekindled sense of purpose:

- to understand the Earth and its peoples
- to document the complexity of life
- to preserve our natural environment
- to share with our community the wonderful diversity of life
- to help us and our audiences understand the importance of living together in peace.

The Field Museum is a gathering place for people of all cultures, faiths and ages.

To that end, the Museum has taken many thoughtful, proactive steps toward helping all of us—staff, volunteers and visitors alike—find meaning and understanding in the tragedy while reflecting on what brings us together as human beings.

We offered our staff the chance to share their thoughts and feelings in an open forum. We gathered with our guests in Stanley Field Hall to join the City of Chicago in a moment of prayer and remembrance. We eliminated our admission fees for two weekends so that people of all backgrounds could explore the diversity of cultures throughout our exhibitions. We held public meetings to help visitors absorb and contemplate the events. The panelists, including several Field Museum scientists, gave insight into cultural understanding and change, globalization, faith, conflict, Middle Eastern cultures, tolerance, coping with trauma and more. And music of all notes—the Chicago Children's Choir, a drum circle, the Chicago String Quartet, West African and southwest Asian—filled the halls with song. Major support for these free programs was generously provided by The Boeing Company, with additional funding from Nuveen Investments and The Chicago Community Trust.

We also placed a message box in the *Living Together* exhibition so that visitors could write about their feelings. Young or old, American or international, the messages

reflect what many of us have probably experienced at least once in the recent months:

"The spirit of all Americans during this time will stay with me always." (Ireland)

"I pray that we do not give in to hatred and prejudice, but instead reach out to those that are unlike us and impact comfort, understanding and love."

"I feel bad for the families that still have missing moms and dads." (Age 10)

"The pain—the hope—the strength of our people—one nation—after all is said and done—has made us one family."

"The sun is shining but my heart aches. ... How ludicrous that the sun shines right now."

"I fear for the solidarity and freedom nation. ... I fear for what comes in the days ahead."

"I realize the many things I take for granted and often forget to honor and respect."

"I am very mad they crashed into that special building by the White House. ... Hatred is no love in your heart." (Age 7)

In these times of tragedy and uncertainty, we hope you find solace and strength in reflecting on the enduring human spirit and the common bonds that unite us all.

John W. McCarter, Jr.
President & CEO

What do you think about In the Field?

For general membership inquiries, including address changes, call 312.665.7700. For questions about *In the Field*, call 312.665.7115, email acranch@fmnh.org or write Amy E. Cranch, Editor of *In the Field*, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496.

IN THE FIELD INSIDE

Nov/Dec 2001, Vol. 72, No. 6

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Amy E. Cranch, The Field Museum

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Copy editor:

Laura F. Nelson



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The cover image showcases Sigmund Freud: *Conflict and Culture*, open through Dec. 9. Recto and verso of Freud's speech for a BBC interview in English, December 7, 1938. Manuscript Division, Library of Congress. Photo of Sigmund Freud, 1921. Prints and Photographs Division, Library of Congress.

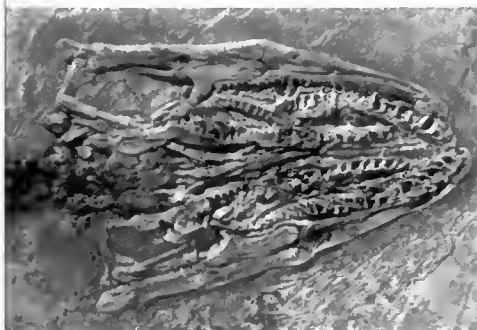
The Field Museum salutes the people of Chicago for their long-standing, generous support of the Museum through the Chicago Park District.

The Field Museum

1400 South Lake Shore Drive
Chicago, IL 60605-2496
312.922.9410
www.fieldmuseum.org



H. SCHULTZ



M. WIDHALM



M. LANNING

2

A new program will help discover and protect wildlife in Bhutan, one of Asia's most biologically diverse but least known countries.

Left: Collared Grosbeak (Mycerobas affinis)

7

See Your Guide to the Field for programs on Freud, fossils, cultural diversity, Cleopatra, chocolate and more.

16

Paleontologists debate about whether snakes evolved from land or sea.

Left: Skull of the Haasiophis fossil found in the Middle East

19

A conservation biologist is awarded for research on amphibian declines and malformations.

Left: X-ray of a malformed mink frog from Minnesota

21

Membership News invites you to shop in the stores for 20 percent off or come to the Children's Holiday Celebration.

Museum Campus Neighbors

Shedd Aquarium Get an insider's look into the Oceanarium's daily activities during Shedd's Go Behind the Scenes opportunity, Nov. 2 to 16, noon until closing. Learn what the dolphins eat and what the belugas play with, and talk with the marine mammal trainers about their jobs. Free with a one-day pass. For more information, call 312.939.2438, or visit www.sheddaquarium.org.

Adler Planetarium Travel 93 million miles to our nearest star, plunge deep into a sunspot and then emerge to experience our powerful sun in *Solar Storms*, the Adler's new StarRider™ Theater show. Discover the sun's influence on Earth—from the awesome beauty of the Northern Lights to electrical power grid blackouts and interruptions of satellite-based communications. For information, visit www.adlerplanetarium.org, or call 312.922.STAR.

Museum Campus Visit www.museumcampus.org, the new one-stop website for the Adler Planetarium, Field Museum and Shedd Aquarium, for a daily calendar, museum programs, directions, traffic alerts, e-postcards and the fun, educational Virtual Explorer Guide. Also, sign up for the new Museum Campus Chicago brochure in the e-Explorers Guide section.

The free trolley service has been extended for the weekends only (10am to 6pm) through December. There will be no service on Bears game days and additional service during the holiday weekends. Schedules subject to change. Visit www.cityofchicago.org/Transportation/trolleys for information.

The Royal Kingdom of Bhutan: Sanctuary for Biodiversity

Amy E. Cranch, Editor, Lawrence Heaney, Associate Curator, Mammals,
and Julian Kerbis Peterhans, Adjunct Curator, Mammals

All photos by Harald Schuetz

Imagine merging the distinct landscapes of Colorado, West Virginia and Costa Rica into an area half the size of Indiana. This seems like a geographic anomaly, but not in the Royal Kingdom of Bhutan, a tiny country nestled in the heart of the Himalayan Mountains between China and India. Wrapped for centuries in a cloak of mystery, Bhutan has recently chosen to begin opening its doors. Though rarely visited by outsiders, it is now seeking external assistance in conserving its astoundingly diverse habitats. Since information on its biological diversity is extremely limited, The Field Museum leapt at the chance to collaborate on the first comprehensive inventory of Bhutan's birds and mammals.

In 1999, the World Wildlife Fund invited The Field Museum to collaborate on an inventory of Bhutan's small birds and mammals, develop a training program for Bhutanese biodiversity specialists and initiate plans for the country's first biodiversity museum. From meager information on the fauna of the Himalayas, which is biologically one of the least known parts of the world, we quickly predicted that Bhutan may have the highest concentration of biological diversity in Asia.

Although its area is only 18,147 square miles, its human population density is low, and its powerful Buddhist conservation ethic has led Bhutan to retain about 70 percent of its natural forests—the highest percentage in Asia. Altitudes range dramatically from about 500 feet to more than 24,000 feet; only Nepal has a greater range. And Bhutan lies at the crossroads of three great biological regions: the lowland rainforests of South and Southeast Asia; the rhododendron/conifer forests and alpine meadows of northern Asia and Europe; and the Himalayan fauna itself, a unique and diverse assemblage of species found only along the Himalayan Front.

After a preliminary conference in Nepal and months of planning, Tom Gnoske, an assistant collection manager in birds, Pamela Austin, an associate in mammals, Julian Kerbis Peterhans, an adjunct curator in mammals, and Harald Schuetz, a professional photographer, entered Bhutan in March 2001. Our team's first impressions were vivid—spectacular landscapes, benevolent Buddhist

traditions, outstanding architecture and literally breathtaking cuisine dominated by chilies! But perhaps most remarkable is a national mandate to maintain a stable environment and society: The Bhutanese government protects almost 33 percent of the land.

Our team worked with colleagues from the Bhutan Nature Conservation Division at four sites in central Bhutan ranging from 2,400 to 12,000 feet. At the highest site, we documented such animals as a pika, closely related to species found in the Rocky Mountains, and a boreal owl, the first Bhutanese record of this species that also lives in northern Asia, Canada and the northern United States. At middle elevations (4,000 to 8,000 feet), we observed animals that are found only on or near the Himalayan Front, including the takin, a burly herbivore distantly related to goats, sheep and cattle, and such birds as the cutia and black-throated parrotbill. We hope to also visit the tropical lowland forest, where we are likely to see animals shared with lowland India and Burma.

We also encountered large, dangerous carnivores. At 8,000 feet, we found footprints in the snow of a female Asian leopard and large cub. Evidence of Bengal tigers was regularly found next to the nets the team set along trails for surveying small birds, and a nursing Himalayan black bear and cub surprised Schuetz and Gnoske in the cool broadleaf forest at 2,400 feet.

(continued on page 4)

This page: The blue poppy (Meconopsis sp.), with its delicate blue or purple bloom, grows high up in rocky terrain. A mystique surrounds its existence since, rarely seen, it takes several years to grow, flowers only once and dies soon after producing seeds.

Opposite page: Young Buddhist monks at Lhuentse Dzong carry on centuries-old traditions in Bhutan, a country of about 2 million people cradled among the Himalayas. Isolated for centuries, Bhutan is slowly opening its doors to outsiders, but the royal family and National Assembly are adamant that reverence for the natural world take precedence in determining the course of economic development.





*Top: The massive takin (*Budorcas taxicolor*) can balance gracefully on its hind legs to reach branches 8 feet high, or prop itself up against a tree trunk and lean forward until the trunk snaps to gain access to leafy food. Takins live in the rugged Himalayan foothills and mountains above 4,000 feet, where they lead a shadowed life in the broad-leaved and conifer forests, preferring thickets and dense bamboo.*

*Bottom left: A pika (*Ochotona* sp.) surveys its territory on a snowy rocky slope at 12,000 feet. This short-eared relative of rabbits is similar to species that are widespread in northern Asia and the Rocky Mountains of North America.*

*Bottom right: The tiny black-throated parrotbill (*Paradoxornis nipalensis*) lives in small flocks that forage for bamboo seeds in the understory of foothill forests at 3,500 to 3,900 feet.*



Our first field season lasted only eight weeks, and the data are still being analyzed. However, our first assessment is that Bhutan still has nearly all of its original wildlife, and may have the best prospects in Asia for long-term conservation. Although large-scale logging and mining are banned, cattle breeds used to produce milk and milk byproducts, including the yak and mithun, challenge the ecosystem with overgrazing and habitat destruction. Also, there is increasing direct competition with humans when rare top predators, such as the snow leopard, brown bear, and wild dog, feed on livestock. We hope our careful documentation of the distribution and habitat needs

of small birds and mammals will help determine conservation priorities so that a stable balance can be achieved between humans and wild species.

In the meantime, generating new information on Bhutan's natural history will certainly arouse greater interest in its conservation. Also, offering highly focused programs for our Bhutanese colleagues about the role of natural history museums in research and public education will help them develop the expertise they need to continue making informed decisions about their country's future—a future that appears remarkably and refreshingly bright. **TF**



In habitats ranging from lowland tropical rainforests at 500 feet to permanent glaciers at more than 24,000 feet, Bhutan supports one of the widest range of habitats in the world. It is also one of the most stable environments in Asia with 70 percent of the country still forested. Biological diversity is probably equally high, though poorly known. Some of the species encountered by our team included, from top left, the catia (*Catus nipalensis*), capped langur (*Trachypithecus pileatus*), boreal owl (*Asio holus tibeticus*), a rufous-backed ground tit and a yellow-bellied blue magpie (*Urocissa flavirostris*). Conifer forests predominate the upper elevations, including this fir forest at about 12,000 feet. *Abies* sp., pictured at left.



Fig. 4. Campsite of the expedition on the mountain slope above the village of Dzong Dzong, 12,500 feet. The camp was established on the 10th of August.

The yak *Bos grunniens* was found to be a common animal in the region and was particularly abundant at altitudes 10,500 feet and higher. Four different types of yaks were found, but there was a marked seasonal variation in the number of yaks found in the region.

The village of Dzong Dzong is situated on the left bank of a gorge, and is a small village. The village is situated at an altitude of 12,500 feet and is a marked place of interest.

YOUR GUIDE TO THE FIELD

A Pullout Calendar of Events for November and December

Inside: Exhibits Festivals Family Programs Adult Programs



New Exhibition!

Sigmund Freud: Conflict and Culture

Through Dec. 9, 2001

Explore the life and legacy of one of the most influential and controversial figures of the 20th century.

Since his death in 1939, Sigmund Freud's theories have been by turns revered, debunked, revised and reviled. This exhibition is the most comprehensive examination yet of Freud's work and impact. Manuscripts and letters reveal Freud's major theories, vintage photographs illustrate his life, and television and film clips demonstrate how his ideas have been absorbed into popular culture.

Organized by the U.S. Library of Congress, which houses the world's largest collection (80,000 objects) relating to Freud's life, the exhibition uses words and images—sometimes contentious, sometimes humorous—to portray a variety of viewpoints.

Don't miss this opportunity to investigate Freud's impact for yourself.

Sigmund Freud: Conflict and Culture is organized by the Library of Congress in cooperation with the Sigmund Freud-Museum in Vienna and the Freud Museum, London.

Analyzing Freud Series

Individual lectures: \$12, students/educators \$10, members \$8. Attend three lectures and save 15 percent: \$30, students/educators \$25, members \$20.

Freud and Women

Dr. Marian Tolpin, Institute for Psychoanalysis, Chicago

Take a fresh look at Freud's answer to the question, "What do women want?"

Tuesday, Nov. 6, 6pm

Sigmund Freud, Arthur Schnitzler and Eyes Wide Shut

Dr. Peter Loewenberg, University of California, Los Angeles

Explore the connections between Freud's writings, fiction and Stanley Kubrick's film.

Tuesday, Nov. 13, 6pm

This Helen Ross Lecture is co-sponsored by the Institute for Psychoanalysis.

Freud and the Jews

Dr. Sander Gilman, University of Illinois at Chicago

Understand what being an Eastern European Jew meant for Freud.

Tuesday, Nov. 27, 6pm

Analyzing Freud is being presented by The Field Museum in collaboration with the University of Illinois at Chicago Humanities Lab. It is also supported by the Austrian Cultural Institute, NY.

The Field Museum gratefully acknowledges the Freud Community Advisory Panel for its insight and assistance.

Feature Presentation

Anthropology Discovers Childhood: The Impact of Freud

*Dr. Mary Catherine Bateson
George Mason University, Arlington, VA*

Discover how Freud's work opened up new vistas for research in the field of anthropology. His emphasis on early childhood experience influenced the development of key theories about how individuals become members of larger societies.

Tuesday, Nov. 20, 6pm



Dr. Mary Catherine Bateson

U.S. LIBRARY OF CONGRESS

The Field
Museum

General Museum Information: 312.922.9410

Family and Adult Program Information and Tickets: 312.665.7400



Cleopatra of Egypt: From History to Myth

Your Attendance is Requested by the Queen

Through March 3, 2002

Fabled for her sensual allure, Cleopatra is best known for seducing Julius Caesar and Mark Antony—two of the ancient world's most powerful men. But history also indicates that Cleopatra may have been one of antiquity's shrewdest political minds. For more than 20 years she preserved Egypt's independence against an ambitiously expanding Roman Empire.

Unravel the mysteries of Egypt's last queen for yourself in *Cleopatra of Egypt: From History to Myth*. This extraordinary exhibition reveals Cleopatra's life and liaisons through more than 350 spectacular artifacts and priceless artworks from the world's premier classical and Egyptian collections.

You'll also discover how Cleopatra's story has endured—through countless poems, books, songs, paintings, movies, jewelry and other works—for 2,000 years after her tragic death.

The Field Museum is the only North American venue for this exclusive exhibition.

An Acoustiguide Audio Tour is available for an additional fee.

This exhibition has been jointly organized by The British Museum in London, in association with The Field Museum in Chicago, and The Egyptian Museum in Rome.

Internship: \$1,500 per BP
National Academic Exchange

Supported by the Department of the Federal Government of the Arts and the Humanities

Spend an exciting weekend in the city!

Several hotels are offering special packages that include tickets to *Cleopatra of Egypt*. Check our website at www.fieldmuseum.org/cleopatra for details.

Learn more about Cleopatra with these exciting programs!

The Field Museum (TFM) and the University of Chicago's Oriental Institute (OI) are collaborating on a series of programs to complement the *Cleopatra of Egypt* exhibition and the permanent collections at both places.

Programs at The Field Museum

Cleopatra VII: Clever Woman or Seductive Temptress? Afternoon Lecture Series

Frank Yurco, Egyptologist

Explore the many facets of Cleopatra's identity and enjoy a social discussion over complimentary coffee and tea.

Tuesday, Nov. 6, 2pm

\$15, TFM and OI members \$12

Tickets to the Cleopatra of Egypt exhibition are not included.

Pre-registration is required.

Looking for Cleopatra Studio Course

Cyd Engel, Milwaukee Art Museum

Examine ancient portraits in *Cleopatra of Egypt*. Then create your own portrait using mixed media collage, drawing and text.

Saturdays, Nov. 3 and 17, 10am–1pm

\$70, TFM and OI members \$60

Cleopatra: From Papyrus to CD-Rom

Behind-the-scenes Fieldtrip

Dr. Janet H. Johnson, Oriental Institute



Enjoy a guided tour of *Cleopatra of Egypt*, then travel by bus to the OI for a behind-the-scenes look at how scholars piece together meaning from ancient texts.

Saturday, Nov. 3, 12:30–4:30pm

\$38, TFM and OI members \$32

Space is limited and pre-registration is required.

Cleopatra's Egypt Adult Course

Frank Yurco, Egyptologist

Discover the ancient Egypt of the Ptolemaic dynasty, when the land of the pharaohs was a center of Hellenistic life and culture, and Cleopatra ruled from Alexandria.

Wednesdays, Nov. 7–Dec. 12, 6:30–8:30pm

\$85, TFM and OI members \$72

Cleopatra in Context: Egypt, the Mediterranean World and Africa

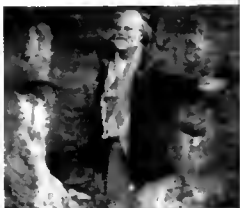
Dr. James Phillips, TFM Anthropology Dept.

Understand Cleopatra's and Egypt's roles in the Mediterranean and African worlds.

Sunday, Dec. 9, 2pm

\$12, students/educators \$10

TFM and OI members \$8



Programs at the Oriental Institute

1155 E. 58th St.

Call 773.702.9507 for information.

In Death Immortal Lecture

Dr. Robert K. Ritner, University of Chicago

Trace Cleopatra's image in literature, painting and sculpture in this slide presentation. Event includes a reception.

Wednesday, Nov. 7, 8–9:30pm

FREE

Cleopatra's Palace: In Search of a Legend Film

Omar Sharif narrates the underwater excavations of ancient Alexandria. Event includes a tour of the OI's Egyptian Gallery.

Sunday, Nov. 4, 1:30pm

FREE

Cleopatra's Egypt Adult Course

This course is being offered at both institutions. See TFM listing for description and fees.

Saturdays, Nov. 3–Dec. 15 (skips Nov. 24)

10am–noon

The Lira Ensemble



Enjoy Our Peaceable Kingdom Holiday Festival

Make The Field Museum part of your holiday tradition!

Our Peaceable Kingdom Festival offers fun for the entire family with music reflecting cultures throughout Chicago and around the world. Enjoy performances from Polish-American, Mexican-American and African-American choruses.

Saturday–Sunday, Dec. 22–23, 11am–3pm

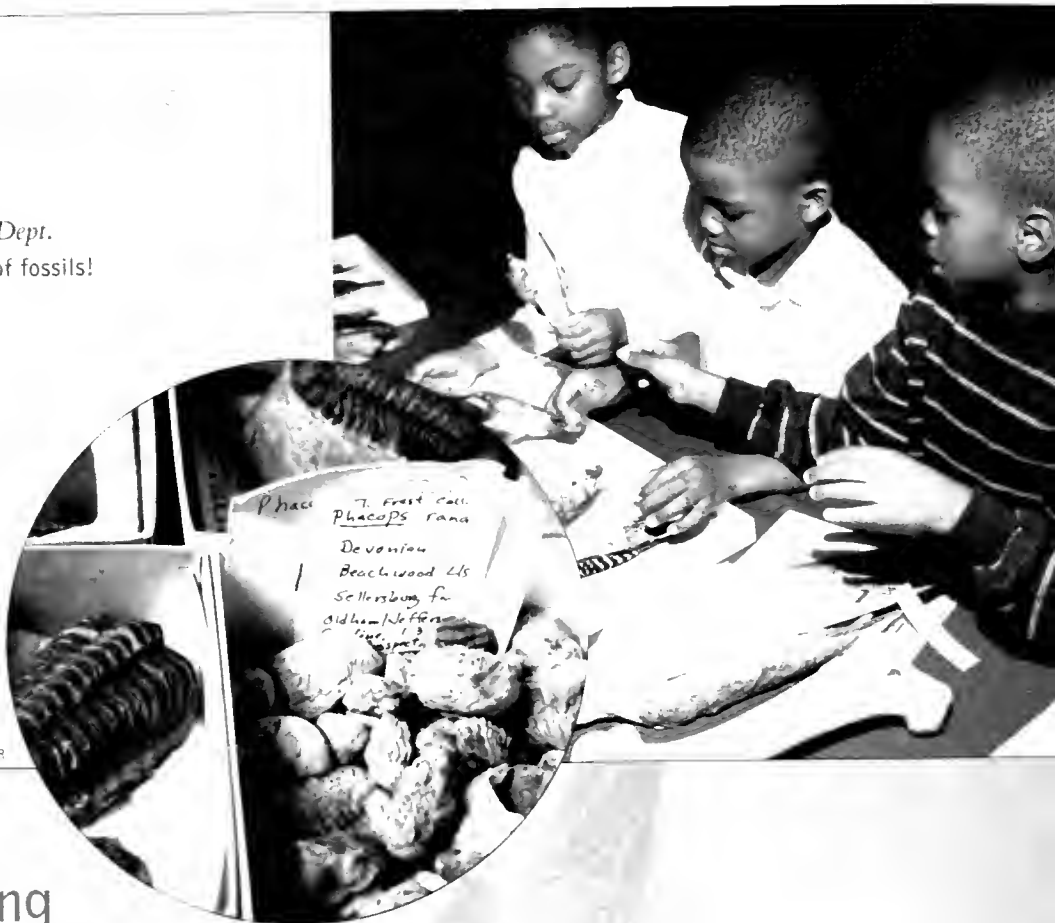
Wednesday, Dec. 26, 11am–3pm

FREE with Museum admission

Dr. Wendy Taylor, TFM Geology Dept.
Delve into the fascinating world of fossils!
You'll get to see and touch
fossils from around the world,
make fossil impressions, handle
life-size dinosaur models
and much more.

Families with children ages 6-10
Saturday, Nov. 3, 10-11am
\$10, members \$8

W. TAYLOR



Literary Reading

Killing Indians: Myths, Lies and Exaggerations, by Sherman Alexie

World of Words Series



REX RYSTEDT

Below is a calendar of current and upcoming temporary exhibitions.
Some dates may change. Remember to call 312.922.9410 or visit our website for specific information.

Sigmund Freud: Conflict and Culture
Through December 4, 2001

**In Her Hands: Craftswomen
Changing the World**
Through January 13, 2002

Cheyenne Visions
Through February 17, 2002

During the Day

Behind the Scenes

*Dr. David Willard,
TFM Division of Birds*

After a busy summer of bird watching, do you have a notebook full of observations? Go behind the scenes to view our amazing bird collection and compare notes with Field Museum scientists. You'll learn how bird scientists conduct their research and what local birds are planning for the winter.

Families with children grades 1 and up

Friday, Nov. 9, 6–8pm

\$15, members \$12

Listen to a story, sing songs and make an art project to take home—all in just 20 minutes! Meets in the Living Together exhibition.

Families with young children

One adult for every three children, please.

Saturdays and Sundays, 1pm

Daily from Dec. 26–30 and Jan. 2–6

FREE with Museum admission

This program is sponsored by the Siragusa Foundation Early Childhood Initiative.



Lectures

Becoming Human and Beyond Conference

Leading thinkers will explore how new research from the Human Genome Project, robotics, neuroscience, paleontology and artificial intelligence affects our humanity.

Nov. 1–3

\$210, members of American Association for the Advancement of Science or The Field Museum \$180, students \$150

Visit www.aaas.org/spp/dser/becominghuman.htm for more details.

Co-organized by The Field Museum and the Program of Dialogue on Science, Ethics and Religion of the American Association for the Advancement of Science.

A Tale of Two Histories: Early States in Japan

New Discoveries Series

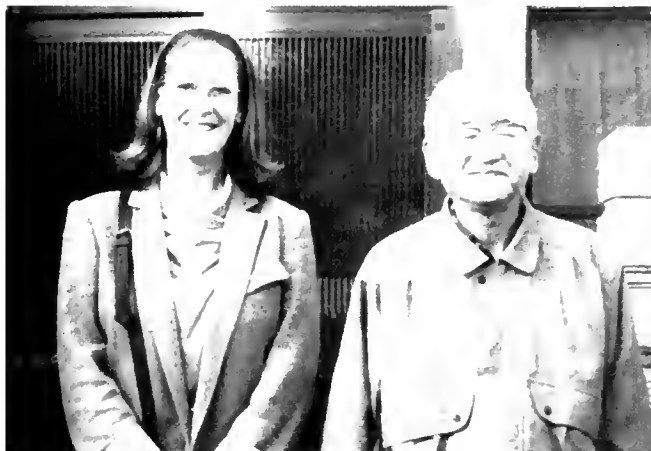
Professor Gina Barnes, University of Durham, England

Compare two divergent historical accounts of the political and social currents running through Japan in the third through fifth centuries—a turning point on the road to state formation.

Saturday, Nov. 17, 2pm

\$12, students/educators \$10, members \$8

This lecture is part of the Boone Lecture Series on East Asian Anthropology and Culture, named after Commander Gilbert Boone and Katharine Phelps Boone, who endowed the series and gave the Museum an extraordinary collection of Japanese art and material culture.



Adult Fieldtrips

Ethnic Chicago

Dr. Irving Cutler, Professor Emeritus, Chicago State University

Explore the past and present of some of Chicago's most vibrant ethnic communities, including Maxwell Street, Greektown, Bridgeport, Chinatown, Pilsen and Wicker Park.

Saturday, Nov. 17, 9am–4:30pm

\$60, members \$50

Lunch included.

**Cleopatra of Egypt:
From History to Myth**
Through March 3, 2002

Chocolate
February 14–September 8, 2002

**The Tiniest Giants:
Discovering Dinosaur Eggs**
March 15–September 2, 2002



R. TESTA/GNA106902C



Experience life as the Pawnee Native Americans lived out on the Great Plains. Docents help bring history to life in this full-size replica of a traditional Pawnee lodge.

*Saturdays and Sundays, 10am–4:30pm
Weekdays, 1pm*

The Museum offers a variety of hands-on activities to make your family's visit special. Dissect an owl pellet, see your name written in hieroglyphs and more! Check the information desk for details on the day of your visit.

Cultural Connections

Travel to area museums to celebrate cultural diversity. Pre-registration is required; call 312.665.7474.

Lithuanian Folk Songs: The Soul of Lithuania
At the Balzekas Museum of Lithuanian Culture
6500 S. Pulaski Rd.

Hear the Knights of Lithuania chorus and learn about the history and impact of the oldest Lithuanian organization in the United States.

Saturday, Nov. 17, noon–2pm or 4–6pm (select one)
\$17, members \$15

Parallels Between Us—A Joint Event
At the Mexican Fine Arts Center Museum
1852 W. 19th St.

Discover how the experience of being colonized by Spain has shaped the traditions of Mexico and the Philippines in similar ways. The Mexican Fine Arts Center Museum and Filipino American Historical Society of Chicago are partnering on this event.

Saturday, Dec. 1
noon–2pm or 4–6pm (select one)
\$17, members \$15



Books such as this are an important way of passing on cultural heritage, which is the theme of the December Cultural Connections event.

HAF JENNIFER LEWIS FOR THE PERFORMING ARTS



Final Days!

Julie Taymor: Playing with Fire

The following activities are free with Museum admission.

Hear the stories behind our fascinating exhibitions on a daily Highlights Tour. Also watch for tours of *Inside Ancient Egypt* and *Eskimos and Northwest Coast Indians*.

Bring your own materials and get tips from artists and scientific illustrators as they create artwork inspired by our exhibitions.

Every third Saturday of the month, 11am–2pm

Meet Field Museum scientists and see rarely displayed specimens from our collections.

Every second Saturday of the month, 11am–2pm

Feb. 14–Sept. 8, 2002

Chocolate

Immerse yourself in the story of a rainforest treasure as you take a sweet journey for all ages—from the rainforest to the civilization of the ancient Maya, from 16th century Europe to a modern-day candy factory.

Chocolate will reveal facets of this luscious treat that you've never thought about before.



Examine the plants, products, history and culture of chocolate in *Unwrapping Chocolate: Culture and History*, a series of public programs on Tuesday evenings from Feb. 19 to April 23, 2002. *Unwrapping Chocolate* combines the breadth and depth of a college course with the flexibility to tailor the

studies around your interests and schedule. Enjoy this program as a lecture series, or enroll in the complete course, which also includes readings, assignments and discussion labs through the University of Illinois at Chicago.

Chocolate and its national tour were developed by The Field Museum, Chicago. This project was supported in part by the National Science Foundation.

Extraordinary sets, masks and costumes will bring your imagination to life in the new production of *The Lion King*, a musical inspired by the diverse cultural traditions to create spectacular theater.

John Legend's "Perfect 10" was nominated for the 2002 Grammy Award for Best Male Vocal Performance. The song is from the album *John Legend*. Music credits: Lyrics by Hans Zimmer and David Zippel; Music by Hans Zimmer and David Zippel.

Field Museum Stores Offer Something for Everyone



J. WEINSTEIN/GN88794

This holiday season, visit The Field Museum Stores for a variety of new and unique gifts to delight every person on your list.

You'll find a full line of Cleopatra-inspired and Egyptian treasures. For an elegant, personalized gift, look for pendants that display a person's name in hieroglyphs and symbolize long life and good luck. Art lovers will enjoy reproductions of Egyptian art on authentic papyrus paper. Also select from a variety of intriguing books and other one-of-a-kind accessories.

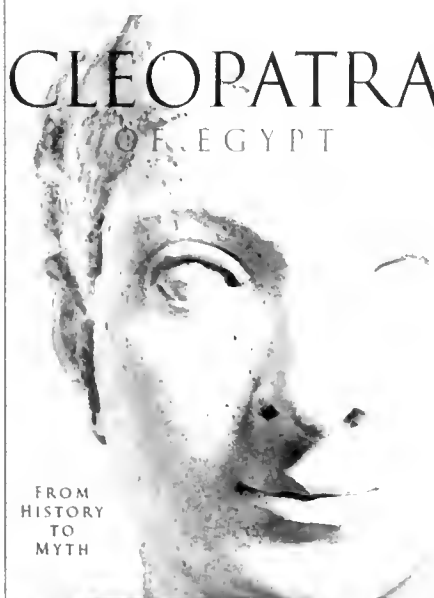
In honor of the world's most famous *T. rex*, the store is adding new Sue merchandise. Look for umbrellas, plush backpacks, handcrafted Sue ornaments from Poland and reproductions of Sue watercolor paintings created by Museum artist-in-residence Peggy Macnamara. As always, the store also carries an array of fun and educational dinosaur toys.

Also look for our exclusive Curator's Choice items. While conducting research around the world, Museum anthropologists personally select ceramics, baskets, carvings and other merchandise from the local artisans they meet. This fall, look for pottery from the Shandong Province in China. Every Curator's Choice

piece comes with a label providing background information, such as date, locality, artist information and how the item relates to The Field Museum's current archaeological work.

Members regularly receive a 10 percent discount on all purchases. On Dec. 1, 2 and 3, the Museum is offering members a 20 percent discount. For more information, call 312.665.7694.

CLEOPATRA OF EGYPT



The Museum Stores will feature a variety of Cleopatra-related items and Egyptian treasures, including this exhibition catalogue.

Visitor Information



Hours: 9am–5pm daily. Closed Christmas and New Year's Day.

To get tickets: *Cleopatra of Egypt: From History to Myth* and *Julie Taymor: Playing with Fire* are specially ticketed exhibitions.

Member passes can be reserved in advance by calling Ticketmaster at 312.902.1500 (service charges apply) or coming to the membership desk near the Museum's south entrance (no service charges). Non-member tickets can also be reserved in advance through Ticketmaster or at the Museum's will call desks.

Day-of tickets are available at the Museum, while supplies last.

Information: 312.922.9410 or www.fieldmuseum.org





Fit for gods of enormous might, mushrooms of *Macrocybe titan* are among the largest of any fungus. This specimen, three feet in diameter and nearly 16 pounds when fresh, grew out of an abandoned leaf-cutter ant nest. It was collected as part of the Costa Rican National Fungus Inventory, an international project coordinated by Gregory M. Mueller, chair of The Field Museum's botany department. The mushroom is probably poisonous to humans, and the strong cyanide odor it emits indicates there may be an internal toxin keeping fungi-favoring critters away—hence its unstoppable titanic size.

The project, which is the largest, most comprehensive inventory of tropical fungi ever attempted, is designed to answer questions about fungi diversity, distribution and biology. In addition to his international leadership, Mueller also manages the research group focusing on mushrooms and other macrofungi for the inventory. The Field's own Sabine Huhndorf and Fernando Fernandez are studying ascomycetes, small fungi that appear as black dots on wood and may aid in decomposition, and Robert Lücking works with lichens. Together, Field Museum mycologists and their students cover most major groups of fungi.

To learn more, visit www.inbio.ac.cr/papers/gt_hongos/en/index.htm. Gregory M. Mueller, curator of mycology and chair of the botany department, chose this Scientist's Pick specimen.

Snakes with Legs—Of Land or Sea?



*The hind leg of
Haasiophis*

Olivier Rieppel, Chair, Department of Geology

Photos by Mark Widhalm

It has been called a paleontological “hot potato.” Two groups of scientists have come to very different conclusions about the origin of snakes from looking at the same set of fossils. One says they evolved from land animals, and the other claims they descended from seafaring ancestors. It is complicated to determine which combination of facts and philosophy will prevail, but let’s look at where Field Museum scientists stand.

Setting the stage

Popular groups such as dinosaurs and their descendants and relatives evolved during the Mesozoic era (250 to 65 million years ago). Less well known are the numerous groups of reptiles that entered the sea. In the Cretaceous period, the last part of the Mesozoic era, a group related to today’s monitor lizards, called mosasauroids, adapted to the sea. Early representatives were small, elongated creatures with a long neck and tail and small limbs. Toward the end of the Cretaceous period, the mosasaurs had arrived amongst the largest predators of the sea before they became extinct.

The lower jaw of mosasaurs is unique among lizards in two ways. First, the front tips of the mandibles meet in a highly mobile contact. Second, each mandible has an inner joint between the front tooth-bearing bone and more posterior elements. In the 1870s, E.D. Cope explained that this structure allowed mosasaurs to engulf large prey. He classified them in a group he called *Pythonomorpha* and

found them to be related to snakes.

The sea, however, is not the only environment for lizards with an elongated body and small limbs. Many land-dwelling lizards that live in loose sand, open grassland, under leaf litter or in self-constructed tunnel systems show similar adaptations. Some authors, therefore, have sought the ancestors of snakes among such land-dwelling lizard groups. In 1940, G.L. Wall published his groundbreaking observation on the embryological development of a snake’s eye, which differs from that of a lizard in profound ways. Some lizard ancestor would have adapted to a secretive (hiding), nocturnal or even burrowing life, correlated with an elongation of the body, reduction or loss of external limbs and a reduction of the eye. In the snake descendants, the eye would have redeveloped completely, but in ways that differ from the eye of lizards. This hypothesis was backed up again in 1973 when two scientists found that the optic centers in the brains of lizards and snakes differ in their embryonic development.

A debate begins

The stage was thus set for conflicting hypotheses of snake origins. Do snakes descend from marine mosasauroids or from secretive, nocturnal or even burrowing lizard ancestors? Our current understanding of snake evolution would seem to favor the latter hypothesis since today's primitive groups, such as blind snakes, thread snakes, pipe snakes and shield-tails, are either burrowing or secretive and have a limited capability to engulf large prey.

As one climbs up the evolutionary tree, snakes' feeding mechanics become more sophisticated, and they can eat prey that is larger than the diameter of their head. These boas, pythons and more advanced snakes are called Macrostromata, or big-mouthed snakes. When a python eats, the lower jaw primarily secures the prey in place while the upper jaw "walks" across the prey and pulls it into the esophagus. This, however, contrasts with Cope's earlier theory that he used to support snakes' relationship to mosasaurs (of the sea), which placed emphasis on the lower jaw's function in feeding.

And then along came...

In the 1970s, a zoology professor at Jerusalem's Hebrew University, George Haas, befriended Arab families that quarried limestone near 'Ein Yabrud in the Judean. This limestone, deposited in a shallow marine environment about 93 million years ago, was rich in fossils, including fishes, turtles and the occasional early mosasauroid and snake. Haas purchased many of these fossils for his collection, yet never expected to come across fossil snakes with well-developed hind limbs. All primitive snakes, including boas and pythons, still retain rudiments of the pelvic girdle and femur, but not almost-complete limbs as those found in the 'Ein Yabrud fossils.

Haas had spent a lifetime studying land lizards and snakes in search of snake origins, but now he had pulled snakes with almost-complete hind limbs from the sea (figuratively speaking)! His last publications reflect his bewilderment and unwillingness to concede that snakes might have had a marine origin after all. Haas died during the process of describing the second of the two species he had in his collection.

Picking up where Haas left off

In 1997, M.S.Y. Lee and M.W. Caldwell re-described *Pachyrhachis*, the first fossil snake from 'Ein Yabrud, as a snake rather than a snake-like mosasauroid. Based on its well-developed hind limbs, they postulated that *Pachyrhachis* is not only the most primitive snake known, but also the link between snakes and mosasaurs, a link that implies a marine origin of snakes.

I co-wrote a detailed study published in *Fieldiana*, The Field Museum's scientific journal, that severely criticized their conclusions. I have also joined forces with other scientists who work on the 'Ein Yabrud mosasauroids. Together we described the second species Haas had in his collection, which we named *Haasiophis* in his honor. As the best-preserved specimen, it documents beyond all doubts a macrostomatan skull similar to that of a boa and python. But what about the well-developed hind limbs?

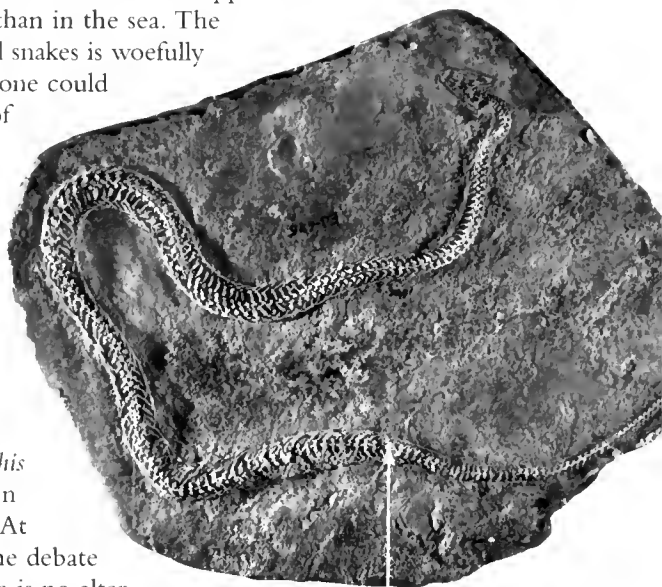
Two interpretations are possible. If *Pachyrhachis* and *Haasiophis* are primitive, representing the root of the family tree of snakes and the link to marine mosasauroids, then the skull structure and jaw mechanics characteristic of macrostomatan snakes must have evolved twice, once in these fossils and again in macrostomatans. The intermediate groups of snakes would have lost the macrostomatan skull structure to adapt to a secretive or burrowing mode of life.

If, on the other hand, *Pachyrhachis* and *Haasiophis* are classified as macrostomatan snakes, their hind limb may have re-developed from rudiments like those seen in boas and pythons. But lizards have lost their limbs multiple times throughout evolution, and it is also quite possible that snakes did so, too.

If snakes are of terrestrial origin, their fossil record could be rather poor; fossilization happens less frequently on land than in the sea. The Mesozoic record of fossil snakes is woefully incomplete, indeed, and one could speculate that a variety of Mesozoic snake lineages that may have had well-developed hind limbs remain unknown.

Limits of a scientific debate

With journals such as *Nature* and *Science* involved, the debate on *Pachyrhachis* and *Haasiophis* has gained prominence in vertebrate paleontology. At this time it seems that the debate has stalled, and that there is no alternative but to agree to disagree. Both Maureen Kearney from the Museum's amphibians and reptiles division and I are not satisfied with this state of affairs. The task at hand is to go to the root of the problem and try to understand how the language of science is threatening to break down. The answer may lie in empirical research as much as in the philosophy of science. **ITF**



The fossil snake *Haasiophis* from the mid-Cretaceous period, found in the Judean. The arrow indicates where the hind leg on page 16 is located.

Making Connections and Staying Connected

Laura F. Nelson, Writer

There are countless ways that friends and supporters come to The Field Museum. Many approach it with a sense of scholarly yearning, others with intrigue.

Others want to support the great work that is done at the Museum every day. They may start off as members, increase to The Annual Fund level (annual contributions of \$100 and above) and eventually build remarkable associations through The Founders' Council (annual contributions of \$1,500 and above). Whatever the level of giving, every gift helps sustain the operations of this vast institution.

Giving to The Annual Fund or Founders' Council gives you greater exposure to collections, research and exhibitions. It also increases the opportunity for more personalized learning, specialized giving, program

involvement and one-on-one relationships.

Cary Malkin, chair of The Founders' Council, initially became intrigued when former Museum President Sandy Boyd introduced him to world-class scholars doing significant independent research both at the Museum and in its name. As a strong supporter, Malkin says, "The opportunity to meet and visit with these scholars is just fantastic."

As a member of The Founders' Council, Patricia Schnadig says the Museum's scientific side is what "the public often doesn't see—building a collection, the years of work behind each exhibition and development of programs from the ground up. There is more to the Museum than the public space."

Schnadig's personal connection came through

giving to the Field Dreams program of the Women's Board, which is a wish list of departmental projects that need funding. It includes everything from a color printer to equipment for a field laboratory in China. Schnadig chose to support conservation and environmental work through the Cofan turtle preservation project in Ecuador. (See www.fieldmuseum.org or the Nov/Dec 2000 *In the Field* for more information.) Schnadig says she has "never worked with people who are so generous with their time in every department. The more involved you are, the more exposed you are to curators and scientists. It is an ongoing education."

Jean Carton participates and supports in many capacities. "The interactions and relationships that develop between the curators and the volunteers, and therefore with the public, are wonderful," she says. Carton makes a connection by looking for magical ways to bring facts to our audiences. To this end she helped develop scavenger hunts throughout the Museum. Families can try to find a dik-dik in the Africa exhibition, or discover "How hot is lava?" "Scavenger hunts teach awareness, point of view and height perspective," she says. "You can't talk to a 3-year-old about a giraffe's eyes—they're too high up. But ask them to look for their feet or knees? The child will connect."

Malkin, Schnadig and Carton have these experiences because they give, and through giving, they learn firsthand how their contribution has helped the institution. Personal learning experiences send financial supporters on an open-ended journey filled with opportunities for new perspective.

Participating in The Annual Fund or Founders' Council strengthens the Museum's mission to offer education, exhibition and research programs. "There are not too many places in the world like the Field—they can be counted on one hand," says Malkin. "It is important that this institution receive the support it needs to keep its mission alive."



D. BRINKMEIER

The Annual Fund and Founders' Council provide unrestricted support to programs such as turtle conservation in South America. Here, Roberto Aguinda (left) and a member of a neighboring village in Ecuador review a book that the Museum co-created with the Cofan.

How can I be a part of The Annual Fund?

Contributing to The Annual Fund gives you the opportunity to further support the Field beyond the cost of membership. A minimum gift of \$100 or more will give you a 1-year family membership in addition to invitations to exclusive programs and previews, based on your level of giving.

Please use the enclosed envelope if you would like to mail in a year-end contribution. Contributions can be made by cash, check, credit card or appreciated securities. A matching gift from your company could double your contribution and place you at a higher level. Please check with your employer to see if it provides this opportunity.

For more information, please contact Heather Scott at 312.665.7784.

Amphibian Researcher Wins Conservation Award

Because their skin is permeable to water and the grunge found in it, amphibians are excellent bioindicators. Their abundance and health point to the quality of a habitat. But the recent dramatic decline in amphibian numbers, along with an increase in frog malformations, has many scientists hopping for answers.

Dr. Michael Lannoo received the Parker/Gentry Award in September for his research and public education efforts on amphibian well-being. His environmental work covers many fronts: researcher, author, university professor, featured Discovery.com expert, biodiversity advocate and conservation biologist. As the U.S. coordinator for a task force established by the World Conservation Union, Lannoo and his colleagues have documented several factors that contribute to declining and malformed populations—habitat destruction, ultraviolet-B radiation, parasites and pesticides, to name a few.

Most of Lannoo's studies are concentrated in the Upper Midwest, which has become one of two U.S. hotspots for amphibian malformation. Clearing and draining the land for agriculture in the early 20th century was a major contribution to amphibian decline. "For every leopard frog we see today, there were probably 100 to 1,000 more alive

100 years ago," he says. Regarding malformations, missing limbs and bizarre outgrowths are the most common ones seen. Disfigured animals do not live long; they are either predated or die quickly because of their inability to move normally. "The grossest of these malformations were not even conceivable 10 years ago. What will it be like in another 10 years?"

Lannoo is a full professor with joint appointments at the Indiana University School of Medicine and Ball State University. He also enjoys a summer appointment at the Iowa Lakeside Laboratory.

The Parker/Gentry Award, presented annually by The Founders' Council, honors an outstanding individual or group whose efforts have made a significant, practical impact on preserving the world's rich natural heritage, and whose actions serve as a model for others. The award is named for the late Theodore A. Parker III, an ornithologist, and Alwyn H. Gentry, a botanist, who both died on Aug. 3, 1993, while surveying hill forests in western Ecuador. Go to www.fieldmuseum.org/parkergentry for more information.



Leopard frog with an extra appendage off its back left knee

New Dinosaur Expert Already Leaving Footprints

Jokingly called a "15-foot-long, 700-pound duck," a well-preserved, 70-million-year-old fossil found last summer has solved the mystery of what an ostrich-like dinosaur ate and where it lived.

Dr. Peter Makovicky, The Field Museum's new assistant curator of dinosaurs, unearthed *Gallimimus bullatus* in the Gobi Desert during an expedition

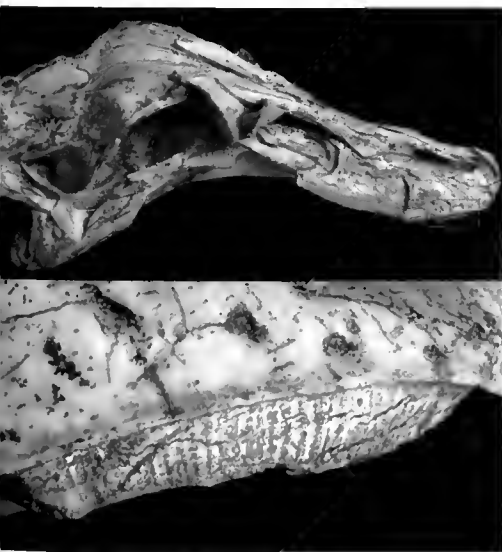
conducted by the American Museum of Natural History (AMNH) and the Mongolian Academy of Sciences. A thin, comb-like structure on its beak—never seen before—is similar to the filter-feeding beak of a contemporary duck. *Gallimimus* is an ornithomimid, a fast-running, bird-like dinosaur with a small head and long tail. Ornithomimids belong to theropods, the carnivorous dinosaurs that include *Tyrannosaurus rex*. The crux is that they are toothless.

Whereas previous theories showed *Gallimimus* chasing animals or browsing through trees, this discovery indicates that it may have strained tiny invertebrates and other food particles from water and sediment. It stood about seven feet tall and 15 feet long—large to be slurping up minuscule portions from the bottom of a pond. Makovicky's find, not fully grown, is about half that size.

Caked in sand, Makovicky's team was about to head home when they discovered

a near perfectly articulated tail that continued into the rock. Many dinosaurs are found in what is called the "classic death pose," in which their neck tendons dry out and the head is pulled back over the hips. This *Gallimimus* apparently fell whole into still water, was buried quickly in mud or sand and remained undisturbed; almost all of its bones touched the way they would have in life.

Makovicky, who joined the Field from AMNH, co-authored a paper in *Nature* with Dr. Philip Currie, curator of dinosaurs at the Royal Tyrrell Museum of Palaeontology in Alberta, and Dr. Mark Norell, a curator and chair of paleontology at the AMNH. The beaks of the two fossils described, *Gallimimus* and *Ornithomimus edmontonicus*, probably consisted of keratin, the same material found in human hair and fingernails. Makovicky, the Field's first fulltime dinosaur expert, will be building the Museum's dinosaur collection.



The skull of Gallimimus bullatus and the rare soft tissue that indicates it was a filter feeder

The Accidental Collector

Mark Schmeltzer, Special Projects Coordinator, Institutional Advancement

To excel in any field, you need commitment, ability and expertise. But even the most accomplished professional will admit that a little serendipity now and then doesn't hurt. This is as true in collecting specimens for science as it is anywhere else.

Consider the experience of Austin Rand, former curator of birds. In 1948, he wrote, "Birds are where you find them—if luck is with you." He meant that a collector would welcome chance, in addition to scientific know-how, when searching for specimens out in the field. He may not have imagined that luck could help him within range of his own office. Four years later, he described an extinct bird that was added to the collection "not through expedition, not through long correspondence, local collection, or exchange, but by accident ... sitting on a shelf, overlooked, in a corner of the Museum."

Heteralocha acutirostris, or huia, is one of about three species of wattled, starling-like birds from New Zealand. While the two other species are represented in the collections, Rand thought the Museum might never acquire a huia. One day he noticed some materials in a dim corner of the collections area, including a dark, pigeon-sized bird

with a long, curved bill. Rand had found his huia without even having to leave the building. The specimen was probably collected during the Museum's earliest days and never catalogued.

"Now, it goes into our study collection, where ... it will remain ... available for comparison and study," Rand said.

Sometimes the specimen finds the collector. In 1938, a Cooper's hawk crashed through a third-floor window. Staff members tried to pick up the stunned hawk, but it revived and led them on a wild chase. The hawk eventually joined the N.W. Harris Public School Extension program as a live educational specimen. More recently, David Willard, collections manager in the birds division, recalls a peregrine falcon that chased a mallard into the Museum's west entrance. The duck died from the impact and became part of the collections.

Animals are not the only research specimens that come calling at our door. In 1981, botany staff members discovered a *Gastrocybe lateria* mushroom growing near the building's west entrance. Department Chairman Gregory Mueller said it was only the second recording of this species growing east of the Rocky Mountains. "The only explanation I could think of was that the spores must have come to the Museum on someone's feet," he said. "When you see things that are that far out of their range, they are often thought to be dispersed by birds. But people carry things around on them, too."

Mueller also recalls that in 1983, the Museum received a shipment of plant materials from Bolivia. "We thought they'd come in ordinary cardboard boxes, but instead, they came in these great baskets," he said. "They were made of palm, and some were even babies' cribs." The delivery unexpectedly brought several fine examples of economic botany, which studies how humans use plant materials for food, medicine, textiles, shelter and other important needs. "So, in addition to the new plants for the herbarium, we accessioned the baskets into our Timothy C. Plowman economic botany collections," Mueller said.

Austin Rand's words may ring true in perhaps hundreds of other stories throughout the Museum's research and exhibition halls. Sometimes specimens are where you find them—if luck is with you.

Austin Rand, former curator of birds, inquisitively studies the huia specimen that he accidentally discovered in the collections area.



ZB5614

Double Discount Shopping Days

Whether you're buying for kin, colleagues or comrades, The Field Museum Stores are a sure thing for holiday gifts.

On Dec. 1, 2 and 3, take advantage of a members' double discount—20 percent off all merchandise, including special Cleopatra-related items, handcrafted gifts, educational toys, books, jewelry and festive souvenirs. Remember to bring your membership card.

The store is open daily from 10am to 5pm. For more information, call 312.665.7694.

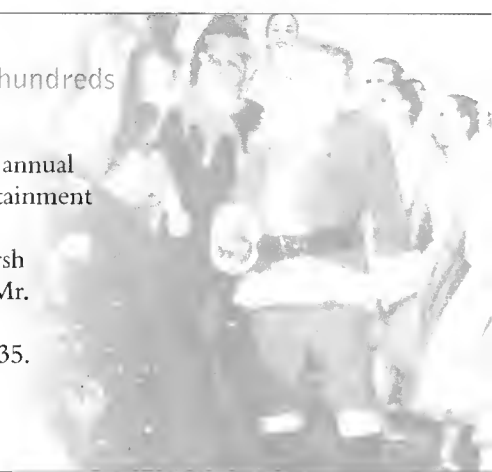
Children's Holiday Celebration

It's a dazzling sight—tiny lights cascading the walls, talents of all sorts and hundreds of eager children donning their holiday best.

On Wednesday, Dec. 5, from 4 to 6:30pm, member families are invited to the Women's Board's annual Children's Holiday Celebration. Come celebrate cultural diversity and enjoy festive food, entertainment and educational craft-making activities.

Keep your eyes open for Santa Claus and a merry elf. Other performers include the Stu Hirsh Orchestra, Jessie White Tumblers, Ballet Chicago Studio Company, Chicago Children's Choir, Mr. Imagination and stilt walkers and jugglers.

Reservations are limited, and tickets will not be sold at the door. For tickets call 312.665.7135.



Calendar Announcement

For years it has been our great pleasure to give you an annual calendar, yet we are sad to announce that, for now, it will no longer be published. Rising costs in paper, printing and production have made it too expensive to offer as a free gift. We thank our previous sponsors and those members who expressed gratitude and admiration for the calendar, and we hope you continue to enjoy other benefits that membership at The Field Museum provides.

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17. I certify that all information furnished is true and complete. /s/ Amy E. Cranch, Editor, In the Field	E. Free distribution outside the mail	4,341	2,506
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For information, call Field Museum Tours at 800.811.7244 or email fmtours@sover.net. Please note that rates, prices and itineraries are subject to change and that prices are per person, double occupancy.

*Dec. 1–9, 2001, or Jan. 18–26, 2003
(9 days)*

Explore the Amazon, Ucayali and Tapiche Rivers in Peru for eight days aboard a 14-cabin riverboat. Search for river dolphins; howler, squirrel and capuchin monkeys; sloths; and capybaras, plus unusual birds such as the jabiru and hoatzin. Optional extension to Machu Picchu, the magnificent archaeological sites around Cuzco.

Leaders: Botanist William Burger (2001) and zoologist Barry Chernoff (2003)

Price: \$3,890, including round-trip airfare from Miami (Dec.)



Jan. 20–Feb. 13 or Feb. 14–March 10, 2002 (25 days)

Embark on a once-in-a-lifetime journey to the world's most remote habitats: the vast flora and fauna of the Amazon; volcanic Canary Islands; great apes of Borneo; annual migration in Tanzania; wildlife of Nepal; rare species of the Galapagos; undersea life of the Great Barrier Reef; moai of Easter Island; tribal cultures of Papua New Guinea; the Seychelles; and Samoa.

Leaders: Social scientist Michael Shermer (Jan.) and geologist Wayne Ranney (Feb.)

Price: \$36,950, including airfare from Miami and return to Washington, D.C., on a first class, 88-seat private jet

Feb. 1–14 (wait-listed) or Feb. 19–March 4, 2002 (14 days)

Travel at the best time of year to see the spectacular herds of the Serengeti Plains. Hundreds of thousands of wildebeest and tens of thousands of zebras and antelope amass in this area each year, attended by lions, cheetahs, hyenas and other predators. Enjoy four days in the Serengeti, then three days at Ngorongoro Crater. Zanzibar extension available.

Leaders: Zoologists Bill Stanley and Mary Anne Rogers (first trip) and David Willard and Tom Gnoske (second trip)

Price: \$6,245, not including airfare

April 6–20, 2002 (15 days)

Enjoy ancient sites and natural history on a 15-day voyage aboard an all-suite, 88-passenger yacht. In Greece, explore Athens, Chios, Patmos, Rhodes, Santorini, Heraklion and Knossos on Crete, Delphi, Dodoni, and the bird-life and wetlands of the Ambracian Gulf. Experience Kotor, Montenegro, on the Adriatic Coast; and conclude your voyage with a day in Venice, Italy.

*Leader: Anthropologist David Reese
Price: \$7,945 and higher, not including airfare*

April 21–May 2, 2002 (12 days)

Circumnavigate Crete on a luxurious 34-passenger yacht, and discover the wonders of the Minoans. Visit the magnificent palaces of Knossos, Phaestos, Mallia and Kato Zakros, and the ruins of Gortyn and Lato. Tour the Heraklion Museum, historic Chania and the monasteries of Toplu and Preveli, and drive through beautiful Kourtaliotiko Gorge.

*Leaders: Anthropologist David Reese
Price: \$5,195 and higher, not including airfare*

July 5–15, 2002 (11 days)

Journey aboard a comfortable 20-passenger ship to the astounding Galápagos. Home to bird, plant and fish species found nowhere else on Earth, the archipelago has contributed greatly to our knowledge of evolution, and has remained much as it was millions of years ago. Opportunities for up-close wildlife encounters are spectacular, as animals show little fear of humans. Machu Picchu extension available.

*Leader: Botanist Michael Dillon
Price: \$4,945, not including airfare*